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WATER SUPPLY COMMISSION OF PENNSYLVANIA

Water Resources Inventory Report

PART III

GAZETTEER OF STREAMS

ACT OF JULY 25, 1913

HARRISBURG, PA.
WM. STANLEY RAY, STATE PRINTER
1917

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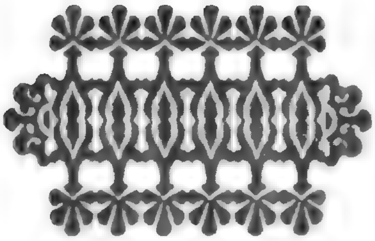

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LETTER OF TRANSMITTAL

Office of the Water Supply Commission,
Harrisburg, September 20, 1916.

His Excellency, the Governor of the Commonwealth of Pennsylvania:

The Members of the Senate and the House of Representatives of the Commonwealth of Pennsylvania:

Gentlemen:

The Water Supply Commission of Pennsylvania respectfully submits herewith Part III of the Water Resources Inventory Report, entitled "Gazetteer of Streams," which contains information relating to practically every stream of importance in Pennsylvania, and is divided into four chapters as follows: "Hydrographic Features of Pennsylvania," "Drainage Tables," "Gazetteer," and "Descriptions of Streams."

THE WATER SUPPLY COMMISSION OF PENNSYLVANIA,
THOMAS J. LYNCH,
Secretary.

PART III

GAZETTEER OF STREAMS

(The data herein contained were collected during the year 1914, and the conditions described were those then existing)

INTRODUCTION

This Gazetteer of Streams contains information relating to practically every stream of importance in Pennsylvania, and is divided into four chapters as follows: "Hydrographic Features of Pennsylvania" (see below), "Drainage Tables" (see page 19), "Gazetteer" (see page 19), and "Descriptions of Streams" (see page 20). The large or important streams are described in detail; while for the smaller ones, the name, location, parent stream, drainage basin and drainage area are given. This information has been compiled from the United States Geological Survey topographic sheets; Joseph R. Bien's Atlas of Pennsylvania; county reports prepared by the Water Supply Commission of Pennsylvania describing the operating water supply systems of the state; and other reports and data of the various divisions of the Commission; also other sources as hereinafter mentioned. Where watersheds have been mapped by the United States Geological Survey, the information is more accurate than where less reliable maps had to be used. These surveys of the Federal Government cover about 55 per cent of the state and have been exceedingly valuable in this work.

HYDROGRAPHIC FEATURES OF PENNSYLVANIA

Pennsylvania is divided topographically and hydrographically into six drainage basins, three of which are further divided into subbasins, defined by prominent physical features, presenting in its watershed the divides between the Atlantic Ocean, Gulf of Mexico and the Great Lakes drainage systems. Precipitation in Pennsylvania finds its way into the Atlantic Ocean by the Delaware, Susquehanna and Potomac rivers, through Delaware and Chesapeake bays; by the

Allegheny and Monongahela rivers water flows into the Ohio River, thence into the Mississippi River and the Gulf of Mexico; other streams discharge into Lake Erie and Lake Ontario, thence into the St. Lawrence River, through the Gulf of St. Lawrence, into the Atlantic Ocean.

The state has three important river systems,—the Delaware in the east, the Susquehanna in the middle and the Ohio in the west; while smaller areas drain into the Potomac River in the middle south, into Lake Erie in the northwest, and into Lake Ontario, through the Genesee River, in the middle north section. The Water Supply Commission has considered the state as separated naturally into six primary drainage basins as follows:

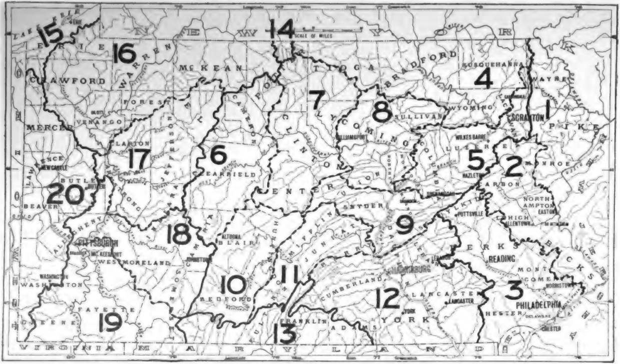
1. Delaware Basin.
2. Susquehanna Basin.
3. Potomac Basin.
4. Genesee Basin.
5. Erie Basin.
6. Ohio Basin.

The first, second and sixth basins are further divided into subbasins as follows:

The Delaware Basin into the
(1) Upper Delaware Sub-basin;
(2) Middle Delaware Sub-basin;
(3) Lower Delaware Sub-basin.

The Susquehanna Basin into the
(4) Upper North Branch Susquehanna Sub-basin;
(5) Lower North Branch Susquehanna Sub-basin;
(6) Upper West Branch Susquehanna Sub-basin;
(7) Middle West Branch Susquehanna Sub-basin;
(8) Lower West Branch Susquehanna Sub-basin;
(9) Middle Main Susquehanna Sub-basin;
(10) Upper Juniata Sub-basin;
(11) Lower Juniata Sub-basin;
(12) Lower Main Susquehanna Sub basin.

The Ohio Basin into the
(16) Upper Allegheny Sub-basin;
(17) Middle Allegheny Sub-basin;
(18) Lower Allegheny Sub-basin;
(19) Monongahela Sub-basin;
(20) Main Ohio Sub-basin.



Map of Pennsylvania showing Drainage Basins and Sub-basins

1. Upper Delaware Sub-basin
2. Middle Delaware Sub-basin
3. Lower Delaware Sub-basin
4. Upper North Branch Susquehanna Sub-basin
5. Lower North Branch Susquehanna Sub-basin
6. Upper West Branch Susquehanna Sub-basin
7. Middle West Branch Susquehanna Sub-basin
8. Lower West Branch Susquehanna Sub-basin
9. Middle Main Susquehanna Sub-basin
10. Upper Juniata Sub-basin
11. Lower Juniata Sub-basin
12. Lower Main Susquehanna Sub-basin
13. Potomac Basin
14. Genesee Basin
15. Erie Basin
16. Upper Allegheny Sub-basin
17. Middle Allegheny Sub-basin
18. Lower Allegheny Sub-basin
19. Monongahela Sub-basin
20. Main Ohio Sub-basin

The Delaware Basin occupies the eastern portion of the state and includes all the area in Pennsylvania draining into the Delaware River. The (1) Upper Delaware Sub-basin includes the area draining into the Delaware River above the Lehigh River, embracing all of Pike and portions of Wayne, Monroe, Northampton and Lackawanna counties. The (2) Middle Delaware Sub-basin includes the area draining into the Delaware River above Poquessing Creek to and including the Lehigh River, embracing portions of Bucks, Carbon, Lehigh, Monroe, Northampton, Luzerne, Schuylkill, Lackawanna, Montgomery, Berks and Wayne counties. The (3) Lower Delaware Sub-basin includes Poquessing Creek and the area draining into the Delaware River below, embracing all of Delaware and Philadelphia and portions of Berks, Chester, Montgomery, Schuylkill, Bucks, Lehigh, Lebanon, Carbon and Lancaster counties.

The Susquehanna Basin occupies the middle portion of the state and includes all the area in Pennsylvania draining into the Susquehanna River and Chesapeake Bay. The (4) Upper North Branch Susquehanna Sub-basin includes the area draining into the North Branch Susquehanna River above the Lackawanna River, embracing portions of Bradford, Susquehanna, Tioga, Wyoming, Lackawanna, Luzerne, Potter, Wayne, Sullivan and Lycoming counties. The (5) Lower North Branch Susquehanna Sub-basin includes the Lackawanna River and the area draining into the North Branch Susquehanna River below, embracing portions of Luzerne, Columbia, Lackawanna, Schuylkill, Northumberland, Montour, Sullivan, Susquehanna, Wayne, Lycoming and Carbon counties. The (6) Upper West Branch Susquehanna Sub-basin includes the area draining into the West Branch Susquehanna River above and including Sinnemahoning Creek, embracing portions of Clearfield, Cameron, Cambria, Elk, Potter, Center, Clinton, Indiana, McKean and Jefferson counties. The (7) Middle West Branch Susquehanna Sub-basin includes the area draining into the West Branch Susquehanna River below Sinnemahoning Creek to and including Pine Creek, embracing portions of Clinton, Center, Tioga, Potter, Lycoming and Cameron counties. The (8) Lower West Branch Susquehanna Sub-basin includes the area draining into the West Branch Susquehanna River below Pine Creek, embracing portions of Lycoming, Sullivan, Union, Northumberland, Montour, Tioga, Clinton, Bradford, Columbia, Center and Wyoming counties. The (9) Middle Main Susquehanna Sub-basin includes the area draining into the Susquehanna River below the confluence of the North and West branches to, but not including, the Juniata River, embracing portions of Snyder, Northumberland, Center, Dauphin, Schuylkill, Union, Perry, Juniata, Columbia and Mifflin counties. The (10) Upper Juniata Sub-basin includes the area draining into the Raystown and Frankstown branches, embracing all of Blair and portions of Bedford, Huntingdon, Center, Fulton, Somerset and Cambria counties. The (11) Lower Juniata Sub-basin includes the area draining into the Juniata River below the confluence of the Raystown and Frankstown branches, embracing portions of Mifflin, Huntingdon, Juniata, Perry, Fulton, Franklin, Snyder and Center counties. The (12) Lower Main Susquehanna Sub-basin includes the area in Pennsylvania draining into Susquehanna River and Chesapeake Bay below the Juniata River, embracing all of York and portions of Lancaster, Cumberland, Dauphin, Lebanon, Perry, Adams, Chester, Schuylkill, Franklin and Berks counties.

The (13) Potomac Basin occupies the middle southern portion of the state and includes all the area in Pennsylvania draining into the Potomac River, embracing portions of Franklin, Bedford, Fulton, Adams, Somerset and Cumberland counties.

The (14) Genesee Basin occupies a small part of the middle northern portion of the state, in Potter County, and includes all the area in Pennsylvania draining into the Genesee River.

The (15) Erie Basin occupies the northwestern corner of the state and includes all the area in Pennsylvania draining into Lake Erie, embracing portions of Erie and Crawford counties.

The Ohio Basin occupies the western portion of the state and includes all the area in Pennsylvania draining into the Ohio River. The (16) Upper Allegheny Sub-basin includes the area draining into the Allegheny River above the Clarion River, embracing all of Warren and portions of McKean, Crawford, Venango, Erie, Forest, Potter, Mercer, Clarion, Butler, Elk and Armstrong counties. The (17) Middle Allegheny Sub-basin includes the Clarion River and the area draining into the Allegheny River to, but not including, the Kiskiminitas River, embracing portions of Jefferson, Clarion, Elk, Armstrong, Indiana, Clearfield, Forest, McKean and Butler counties. The (18) Lower Allegheny Sub-basin includes the Kiskiminitas River and the area draining into the Allegheny River below, embracing portions of Westmoreland, Indiana, Somerset, Cambria, Allegheny, Armstrong and Butler counties. The (19) Monongahela Sub-basin includes the area draining into the Monongahela River, embracing all of Fayette and portions of Somerset, Greene, Westmoreland, Washington and Allegheny counties. The (20) Main Ohio Sub-basin includes the area draining into the Ohio River below the confluence of the Allegheny and Monongahela rivers, embracing all of Beaver and Lawrence and portions of Mercer, Butler, Washington, Allegheny, Crawford, Greene and Venango counties.

The areas of these various basins and sub-basins, computed as closely as possible from the data available, are shown in the following tables:

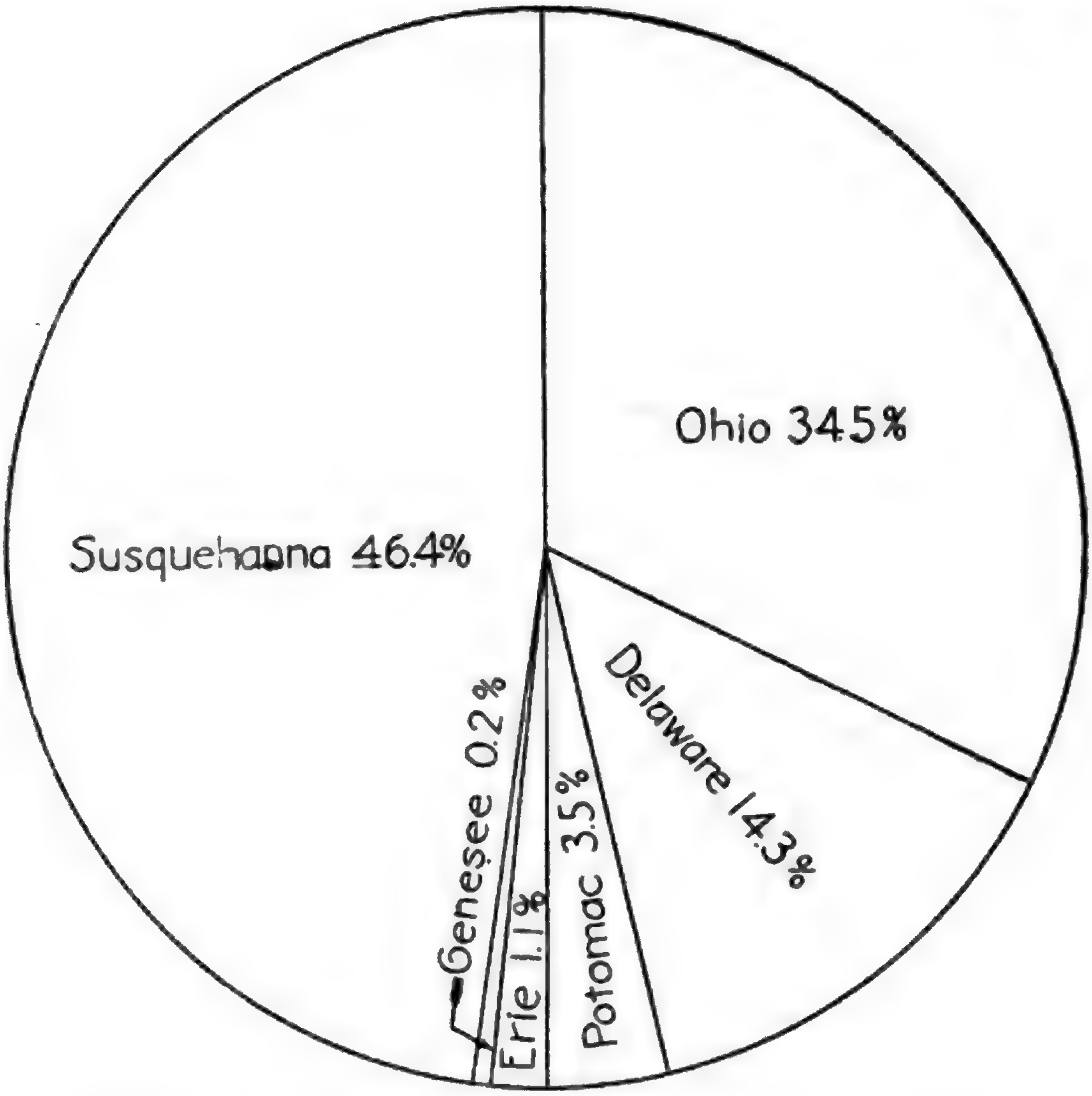
TABLE No. 1—*Areas of Primary Drainage Basins*

Basin	Area in Pennsylvania in Square Miles	Percentage of Total Area of State
Delaware,	6,460	14.3
Susquehanna,	20,917	46.4
Potomac,	1,570	3.5
Genesee,	96	0.2
Erie,	512	1.1
Ohio,	15,571	34.5
Total,	45,126	100.0

TABLE No. 2—*Areas of Sub-Drainage Basins*

Sub-basin.	Area in Square Miles	Percentage of Total Area of State
(1) Upper Delaware,	1,794	4.0
(2) Middle Delaware,	1,949	4.3
(3) Lower Delaware,	2,717	6.0
(4) Upper North Branch Susquehanna,	3,274	7.3
(5) Lower North Branch Susquehanna,	1,723	3.8
(6) Upper West Branch Susquehanna,	2,615	5.8
(7) Middle West Branch Susquehanna,	2,514	5.6
(8) Lower West Branch Susquehanna,	1,784	4.0
(9) Middle Main Susquehanna,	1,450	3.2
(10) Upper Juniata,	2,001	4.4
(11) Lower Juniata,	1,425	3.2
(12) Lower Main Susquehanna,	4,121	9.1
(16) Upper Allegheny,	4,490	10.0
(17) Middle Allegheny,	2,900	6.4
(18) Lower Allegheny,	2,381	5.3
(19) Monongahela,	2,728	6.0
(20) Main Ohio,	3,072	6.8
Total,	42,948	95.2
(13) Potomac Basin (not divided),	1,570	3.5
(14) Genesee Basin (not divided),	96	0.2
(15) Erie Basin (not divided),	512	1.1
Total,	45,126	100.0

Plate II



PROPORTIONAL PART OF PENNSYLVANIA
OCCUPIED BY
EACH DRAINAGE BASIN
Total Area of State 45,126 Sq miles

Table No. 2 shows that the Delaware, Susquehanna and Ohio rivers, with their tributaries, drain 95.2 per cent of the state. Plate II shows Table No. 1 in diagramatic form, the area of the circle representing the area of Pennsylvania, while the several sectors enclose areas proportional to the percentages of the area of the state covered by each drainage basin.

DRAINAGE TABLES

Drainage Tables have been compiled for each basin and sub-basin. The "tree" method is used to designate tributaries, which are indented to the right following the parent stream. For streams wholly within the state the total drainage areas are given in square miles; while for streams lying partly within the state the drainage areas in Pennsylvania are given, and also the total drainage areas when available. The streams described in detail are marked on the left by an asterisk, and may be readily found by their alphabetical arrangement in "Descriptions of Streams."

(For detailed Drainage Tables see page 24.)

GAZETTEER

The Gazetteer contains 4,419 named streams and includes the following data:

1. Name of stream, the significant name governing the alphabetical order when containing such prefixes as branch, fork, little, big, etc.
2. County containing mouth, or in case the stream is a county boundary at the mouth both counties are named. Where the mouth lies outside the state, the last county traversed is given. For streams wholly without the state, but having drainage in Pennsylvania, the name of the state containing mouth is given.
3. Stream to which it is tributary.
4. Basin or sub-basin.
5. Drainage area in square miles.
6. Page where description of stream may be found, such streams being marked on the left by an asterisk, as in the Drainage Tables.

(For detailed Gazetteer see page 116.)

DESCRIPTIONS OF STREAMS

There are 644 streams described in detail, including those having drainage areas in Pennsylvania of 25 square miles and over, and certain others having less than 25 square miles which are utilized for water supply by important towns, or for hydroelectric development. These are classified by drainage areas as follows:

TABLE No. 3—*Classification of Streams Described, by Drainage Areas*

Size	Number of Streams
Less than 25 square miles,	[*]74
From 25 to less than 100 square miles,	421
From 100 to less than 500 square miles,	118
From 500 to less than 1,000 square miles,	[†]12
From 1,000 to less than 5,000 square miles,	13
From 5,000 to less than 10,000 square miles,	4
From 10,000 up,	2
Total number of streams described,	644

[*] There are 3,839 streams in the Gazetteer having less than 25 square miles drainage area.
[†] Not including Erie Basin, 512 square miles, described on page 350.

In the descriptions of streams the following outline has been used as completely as data permit. It contains four main divisions: Natural Features; Hydrographic Features; Natural Resources; Artificial Features.

Natural Features and Artificial Features are included for all streams; Hydrographic Features, where a gaging station has been established; Natural Resources, in the main stream of each basin and sub-basin.

Immediately below the name of stream is given the parent stream and basin or sub-basin to which the drainage belongs. Then follow the main headings as outlined above, with their respective sub-headings as given below:

Natural Features

Source.

The location by township, county, and in some cases the nearest town is given. Where a stream is formed by the junction of two tributaries, the point where they join is designated as the source of the main stream and is used as such throughout the description. The elevation was determined from United States Geological Survey data.

Course.

This includes the general direction from source to mouth, or by main stretches where there is decided change in direction, giving counties traversed and in some cases principal towns passed.

Mouth.

This includes the location relative to some town or other prominent feature, the approximate elevation above sea level of the water surface being determined from United States Geological Survey data.

Length.

This gives the length as measured along the stream from source to mouth, or from confluence when formed by tributaries. When the length is not the total, as in cases where the stream lies partly without the state, it is so designated.

Drainage Area.

Use has been made of the United States Geological Survey topographic sheets and the best available maps of streams for sections not covered by Government surveys. These basins were planimetered from county maps made from the above sources, the check on work being to balance the total area of the county against the total area of the several basins and portions of basins within the county considered. As mentioned above under Drainage Tables, the area in Pennsylvania is given for streams lying partly without the state, and also the total drainage areas when available.

Topography.

The general character of the watershed and main valley is described, including agricultural development, and in some cases forest cover for the smaller streams.

Geology.

This is given only for the larger streams, having drainage areas of 200 square miles and over in Pennsylvania, and gives the geologic structure as interpreted from United States Government Geologic folios and data contained in the Second Geological Survey of Pennsylvania.

Channel.

The general character of the stream as to alignment, width, banks, islands, cascades, etc., is described; and for small streams the geological formation through which the stream has cut is given.

Profile.

This information is included where areas are covered by the United States Geological Survey topographic sheets, or when data on slope based on United States Geological Survey data are available. The rate of fall in feet per mile of the normal water surface is given, generally in two or three stretches, depending on the change in slope, sometimes beginning a short distance below the source, in order to eliminate the drop due to steep hillsides in headwaters.

Lakes, Swamps and Springs.

When these features are important or noteworthy they are mentioned under this sub-heading, but lakes and springs are covered in more detail in Part IV, Gazetteer of Lakes and Ponds.

Precipitation.

The map showing mean annual rainfall for Pennsylvania, as published in Part V, Precipitation, has been used. When the main heading Hydrographic Features is employed, the sub-heading Precipitation occurs there. (See also Part V of the Inventory Report,—Precipitation.)

Hydrographic Features

Gaging Stations.

Where gaging stations have been established, the location and date of establishment are given. The maximum, minimum and mean discharge in second-feet per square mile for the period of record can be obtained from the files and reports of the Hydrographic Division of the Water Supply Commission.

Floods.

For data on this subject the reader is referred to Part VIII of the Inventory Report,—Floods.

Precipitation.

As mentioned above, precipitation occurs at this place when the main heading Hydrographic Features is used.

Natural Resources

As previously mentioned, this main heading is only used for the main stream of each basin and sub-basin, and contains the following sub-headings:

Agriculture.

The principal part of the basin devoted to this industry and its relative importance are given.

Minerals.

The occurrence of anthracite, bituminous coal, oil, gas, iron ore and other minerals of commercial importance are mentioned.

Timber.

The areas covered with extensive forests are mentioned and an estimate of their relative size included.

Water Power.

The more important developments and projects are included in this sub-heading. (See also Part VII of the Inventory Report,—Water Power.)

Artificial Features

Towns.

The important cities, boroughs and villages within the drainage area, together with their populations according to the 1910 census, are given.

Industries.

The principal natural industries, together with the more important commercial developments, are included. (See also Industrial Water Supplies, in Part VI of the Inventory Report,—Water Supply.)

Pollution.

This sub-heading deals only with industrial pollution, such as waste from coal mines, tanneries, paper mills, chemical works, textile and dye works, etc. (See also Part X of the Inventory Report,—Culm.)

Railroads.

This includes railroads which traverse the basin in Pennsylvania, and when they follow the stream it is so mentioned, information being taken from the map of the Pennsylvania State Railroad Commission for 1912.

Utilization.

The use of streams for water supply, water power and navigation are covered under this sub-heading. Some of the streams having less than 25 square miles drainage area that are used for small boroughs and villages are not described separately, but are generally mentioned under the description of parent stream. For detailed information concerning water supply systems, including source of supply, see Part VI of the Inventory Report. The use of streams for water power, including hydroelectric plants and mills in general, is mentioned under this sub-heading. In Part VII of the Inventory Report will be found a detailed discussion of this subject. Only the large streams are used for navigation, and mention is here made of such use. Part IX of the Inventory Report gives detailed description of navigation.

(For detailed Descriptions of Streams see page 211.)

DRAINAGE TABLES

(For text explanatory of the following tables see page 19)

TABLE No. 4—*Upper Delaware Sub-basin*

	Drainage Area Square Miles
*Delaware River (Total 12,012.0),	6,460.0 in Pa.
* West Branch,	660.0
Balls Creek,	15.8
Chehocton Creek,	14.5
* Equinunk Creek,	56.0
South Branch,	7.8
* Little Equinunk Creek,	25.1
Hollister Creek,	9.0
* Calkins Creek,	45.7
South Branch,	20.5
North Branch,	24.5
* Mast Hope Creek,	29.9
* Lackawaxen River,	602.8
* West Branch,	62.3
Johnson Creek,	19.6
Waymart Branch,	20.7
* Dyberry Creek,	71.3
* West Branch,	28.8
East Branch,	16.9
Big Brook,	15.2
* Middle Creek,	77.4
Mud Brook,	5.8
Pond Brook,	2.6
Collins Brook,	6.1
* Wallenpaupack Creek,	239.6
Freeling Creek,	2.6
Mill Creek,	7.5
* East Branch,	30.9
Bridge Brook,	17.9
* West Branch,	70.7

Delaware River (continued).
Lackawaxen River (continued).
Wallenpaupack Creek (continued).
West Branch (continued).

	Drainage Area Square Miles
Stevens Creek,	11.0
Jones Creek,	23.9
Butternut Creek,	9.5
Ariel Creek,	16.6
Mud Pond Run,	2.1
Mill Brook Run,	7.1
Killam Creek,	3.9
Tafton Run,	3.2
Plains Creek,	1.3
Swamp Brook,	9.9
* Blooming Grove Creek,	25.3
Panther Creek,	3.8
* Shohola Creek,	84.1
Rattlesnake Brook,	12.5
Poison Brook,	1.2
Maple Brook,	0.6
Gin Brook,	0.4
Ballard Creek (or Greeley Creek),	15.0
Grassy Brook,	1.5
Walker Lake Creek,	12.0
Pond Eddy Creek,	7.1
Bush Kill,	6.7
Quicks Mill Brook (or Cummins Creek),	4.5
Crawford Brook,	1.2
Vandermark Creek,	5.5
Laurel Swamp Brook,	0.6
Deep Brook,	2.2
Saw Kill,	23.7
Sanvantine Creek,	4.3
Craft Brook,	2.2
Pinchot Brook,	1.4
Dimmick Meadow Brook,	2.5
Sloat Brook,	2.9
Vantine Brook,	1.3
Raymond Kill,	24.2
Dwarfs Kill,	8.2
Swale Brook,	1.8
Conashaugh Creek,	2.3
Dry Brook,	1.2
Adams Creek,	7.5
Bear Brook,	0.8
Long Meadow Brook,	0.9
* Dingmans Creek,	14.8
Nichecronk Brook,	1.5
Hornbecks Creek,	9.6
Toms Creek,	9.6
* Big Bushkill Creek,	149.2
Rocky Hill Creek,	10.2

		Drainage Area *Square Miles*
	Delaware River (continued).	
	Big Bushkill Creek (continued).	
	Wells Creek,	15.5
*	Saw Creek (or Middle Bushkill Creek),	31.1
*	Little Bushkill Creek,	26.5
	Shawnee Creek,	5.2
*	Brodheads Creek,	285.0
	Levers Branch,	6.8
	Buck Hill Branch,	9.0
	Goose Pond Run,	7.3
	Spruce Cabin Run,	2.2
	Rattlesnake Run,	9.6
	Sandy Run,	11.3
	Laurel Run,	2.5
	Stone Mountain Run,	2.3
	Leas Run,	2.1
*	Analomink Creek (or West Branch Brodheads Creek),	43.0
	Swiftwater Creek,	10.1
	Paradise Creek,	13.5
	Ruliffs Run,	5.8
	Sambo Run,	6.8
*	McMichaels Creek,	106.6
	Pensil Creek,	21.7
*	Pocono Creek,	42.1
	Flagler Run,	4.5
	Big Meadow Creek,	1.8
*	Marshall Creek,	33.7
	Pond Creek,	10.3
*	Cherry Creek,	24.0
	Caldeno Creek,	1.5
	Slateford Creek,	3.2
	Jacoby Creek,	5.6
	Allegheny Creek,	8.7
	Oughoughton Creek,	11.0
*	Martins Creek,	46.7
	East Fork,	2.3
	West Fork,	3.3
	Waltz Creek,	12.4
	Little Martins Creek,	6.3
	Mud Run,	5.9
*	Bushkill Creek,	74.8
	Schoeneck Creek,	14.4

TABLE No. 5—*Middle Delaware Sub-basin*

*	Delaware River (Total 12,012.0),	6,460.0 in **Pa.**
*	Lehigh River,	1,373.1
	Trout Creek,	15.4
	Pond Creek,	10.6
	Cold Spring Creek,	3.3
	Choke Creek,	3.9
*	Tobyhanna Creek,	139.1

Delaware River (continued).
Lehigh River (continued).
Tobyhanna Creek (continued).

		Drainage Area Square Miles
*	Upper Tunkhannock Creek,	28.3
	Clear Run,	2.6
*	Tunkhannock Creek,	50.1
*	Bear Creek,	55.8
	Tenmile Run,	7.2
	Shades Creek,	9.3
	Pine Creek,	5.0
	Wright Creek,	8.5
	Linesville Creek,	4.8
	Black Creek,	21.3
*	Sandy Run,	25.1
	Mill Hopper Creek,	0.9
	Pond Creek,	11.3
	Hickory Run,	11.5
*	Mud Run,	35.9
	Dilltown Creek,	9.8
	Carpsrocus Creek,	10.2
	Hunter Run,	8.2
	Indian Run,	1.4
	Drake Creek,	3.3
	Stony Creek,	12.1
*	Black Creek,	62.6
	Hazle Creek,	18.3
	Dreck Creek,	3.8
	Penrose Run,	1.5
	Beaver Creek,	8.6
*	Quakake Creek,	25.3
	Alderson Run,	2.8
	Beisel Run,	5.0
	Little Quakake Creek,	1.6
	Hartz Creek,	1.0
	Little Bear Creek,	9.4
*	Nesquehoning Creek,	33.8
	Bear Creek,	1.8
	Broad Run,	2.1
	Deep Run,	2.3
	First Hollow,	1.8
	James Run,	3.9
*	Ruddle Run,	4.0
	Mauch Chunk Creek,	8.9
*	Long Run,	4.0
*	Mahoning Creek,	37.3
*	Pohopoco Creek (or Big Creek),	105.5
	Middle Creek,	20.1
	Little Creek,	14.5
	Wild Creek,	18.7
*	Pine Run,	12.3
*	Lizard Creek,	53.8
*	Aquashicola Creek,	81.2
*	Princess Creek,	44.3

Delaware River (continued).
Lehigh River (continued).
Aquashicola Creek (continued).
Princess Creek (continued).

	Drainage Area Square Miles
Mixsell Creek,	11.8
Hunters Creek,	9.7
* Trout Creek,	19.6
Little Trout Creek,	4.9
Bertsch Creek,	8.5
Rockdale Creek,	1.7
Fells Creek,	3.3
* Spring Creek,	2.8
* Hokendauqua Creek,	42.6
Indian Creek,	14.2
Dry Run,	2.5
Coplay Creek,	19.8
Catasauqua Creek,	14.6
* Little Lehigh Creek,	187.6
Toad Creek,	8.0
Schaefer Run,	24.3
Breinig Run,	1.3
Iron Run,	11.3
Swope Creek (or Swabian Creek),	12.4
Cedar Creek,	14.8
Little Cedar Creek,	4.8
* Jordan Creek,	81.0
Switzer Creek,	6.4
Lyon Creek,	12.3
Mill Creek,	9.6
Hasson Creek,	7.9
* Monocacy Creek,	49.6
East Branch,	16.9
* Saucon Creek,	58.2
Black River,	4.4
Laubachs Creek,	2.6
East Branch,	9.6
Nancy Run,	2.8
* Durham Creek,	29.6
Cooks Creek,	14.5
Tinicum Creek,	23.6
Beaver Creek,	7.3
* Tohickon Creek,	112.1
Beaver Run,	9.7
Morgan Creek,	4.4
Threemile Run,	7.7
Haycock Creek,	10.0
Mink Run,	2.1
Deer Run,	4.6
Wolf Run,	1.4
Deep Run,	10.0
Gaddes Run,	4.6
Paunacussing Creek,	8.2
Cuttalossa Creek,	2.0

	Delaware River (continued).	*Drainage Area Square Miles*
	Rabbit Run,	0.4
	Inghams Spring Creek,	8.2
	Dark Hollow Run,	0.8
	Pidcock Creek,	12.1
	Brock Creek,	8.5
	Scott Creek,	6.0
	Common Creek,	12.3
	Rock Run,	4.4
	Mill Creek,	21.7
	Queen Ann Creek,	7.0
*	Neshaminy Creek,	236.5
*	North Branch,	32.1
	Pine Run,	11.6
*	West Branch,	26.1
	Cooks Run,	3.7
*	Little Neshaminy Creek,	43.1
	Park Creek,	12.2
	Mill Creek,	22.1
	Lahaska Creek,	7.0
	Watsons Creek,	4.4
	Newtown Creek,	6.2
	Core Creek,	9.5
	Mill Creek,	17.2
	Iron Works Creek,	6.3
	Pine Run,	2.4
	Chub Run,	1.2

TABLE No. 6—*Lower Delaware Sub-basin*

*	Delaware River (Total 12,012.0),	6,460.0 in Pa.
	Poquessing Creek,	20.7
	Black Lake Run,	0.7
	Byberry Creek,	7.7
	Walton Run,	2.9
*	Pennypack Creek,	56.0
	Round Meadow Run,	1.7
	Meadow Brook,	3.4
	Sandy Run,	2.9
	Wissinoming Creek,	2.2
*	Frankford Creek,	36.1
	Tacony Creek,	20.5
	Wingohocking Creek,	7.5
	Little Tacony Creek,	4.7
	Hollender Creek,	......
*	Schuylkill River,	1,915.8
	Tarman Run,	0.4
	Swift Run,	1.4
	Big Creek,	3.6
	Little Creek,	0.6

	Delaware River (continued). Schuylkill River (continued).	*Drainage Area* *Square Miles*
	Kaska-William Creek,	2.7
	Morgans Run,	1.0
	Silver Creek,	3.2
	Yellow Spring Run,	1.1
	Zacharias Run,	2.0
	Repp Run,	0.6
*	Mill Creek,	25.0
	Eisenhuth Run,	1.5
	Mud Run,	3.0
	Kauffman Run,	0.9
	Tar Run,	0.9
	Wolf Creek,	4.4
	Little Wolf Creek,	2.1
	Forest Creek,	1.6
	Norwegian Creek,	6.8
	East Branch,	2.5
	West Branch,	2.9
	Tumbling Run,	7.2
*	West Branch,	53.4
	Dyers Run,	4.8
	Wagner Run,	1.2
	Weeler Run (or McGinnis Run),	1.2
	Butcher Creek,	2.2
	Wolf Creek,	2.2
	Carp Creek,	0.3
	Raccoon Creek,	1.0
*	West-West Branch,	19.2
	Muddy Branch,	4.5
	Schaefer Creek (or Shaefer Creek),	1.8
	Indian Run,	1.8
	Panther Creek,	4.9
	Moss Valley Run,	1.9
	Silfis Run (or Mohannon Creek),	11.1
	Boyer Mill Run,	4.2
	Red Creek,	5.3
	Plum Creek,	5.9
	Pine Creek,	15.9
	Bear Creek,	16.6
*	Stony Creek,	3.7
	Bear Creek,	0.6
*	Little Schuylkill River,	137.9
	East Branch (or Still Creek),	9.3
	West Branch,	4.9
	Neifert Creek,	3.2
	Pine Creek,	7.7
	Bankes Run,	0.4
	Hosensock Creek,	3.0
	Locust Creek,	13.5
	Codorus Creek,	2.8
	Wabash Creek,	4.1

Delaware River (continued).

Schuylkill River (continued).

Little Schuylkill River (continued).

		Drainage Area Square Miles
•	Panther Creek,	10.9
	Slum Creek,	1.3
	Dry Hollow Creek,	1.0
	Owl Creek,	4.2
	Rabbit Run,	2.2
	Stump Run,	1.4
	Brushy Run,	1.8
	Beaver Creek,	10.6
	Cold Run,	3.2
	Wildcat Run,	4.4
	Koenigs Creek,	3.8
	Indian Run,	8.3
	Mill Creek,	3.3
	Mill Creek,	18.0
•	Irish Creek,	25.1
•	Maiden Creek,	215.8
•	Ontelaunee Creek,	28.3
	School Creek,	4.9
	Stony Run,	8.8
	Pine Creek,	17.8
•	Sacony Creek,	55.8
•	Mill Creek,	23.4
	Kemps Run,	1.0
	Willow Creek (or Clover Creek),	22.3
	Laurel Run,	8.5
	Bernhart Creek,	6.7
•	Tulpehocken Creek,	217.6
	Mill Creek,	16.0
	Mill Creek,	13.4
•	Northkill Creek,	42.3
	Mallhead Creek,	4.7
	Wolf Creek,	1.4
	Little Northkill Creek,	21.3
	Birch Creek,	1.3
	Trout Run,	1.0
	Jackson Creek,	1.8
	Spring Creek,	2.1
	Licking Creek,	3.4
•	Spring Creek,	31.0
	Furnace Creek,	4.4
	Plum Creek,	12.8
	Cacoosing Creek,	19.9
	Little Cacoosing Creek,	6.7
	Wyomissing Creek,	17.0
	Kleinginney Creek,	1.8
	Rose Valley Creek,	2.3
	Angelica Creek,	7.3
	Trout Run,	1.6
	Allegheny Creek,	17.9
	Antietam Creek (or Stony Creek),	17.6
	Indian Corn Creek,	2.6

Delaware River (continued). Schuylkill River (continued).		Drainage Area Square Miles
*	Hay Creek,	22.0
	Beaver Run,	3.9
	Stimsons Run,	0.4
	Indian Run,	0.8
	Sixpenny Creek,	4.6
*	Monocacy Creek,	25.5
	Lime Kiln Creek,	4.2
	West Branch,	3.2
	Spring Creek,	5.4
	Leaf Creek,	2.0
*	Manatawny Creek,	90.4
*	Little Manatawny Creek,	35.8
	Furnace Creek,	4.9
	Pine Creek,	22.9
	West Branch,	11.1
	Beaver Run (or Bieber Run),	8.5
	Furnace Run,	2.6
	Trout Run,	2.4
	Ironstone Creek,	14.7
	Sanatoga Creek,	7.2
	Pigeon Creek,	14.8
	Mingo Run,	7.4
	Stony Run,	5.4
*	French Creek,	71.0
	Rock Run,	3.6
	South Branch,	13.9
	Beaver Run,	5.0
	Birch Run,	6.3
*	Pickering Creek,	38.4
	Pine Creek,	5.8
	Pigeon Creek,	3.3
*	Perkiomen Creek,	361.8
	Hosensack Creek,	18.2
	Indian Creek,	4.5
	Northwest Branch,	23.8
	Macoby Creek,	17.6
	Deep Creek,	6.2
*	East Swamp Creek,	49.0
	Licking Creek,	3.5
	Molasses Creek,	3.9
	Butter Creek,	4.4
	Hazelbach Creek,	2.4
	Ridge Valley Creek,	11.0
*	West Swamp Creek,	54.7
	Middle Creek,	4.2
	Schlegel Run,	5.8
	Ministers Creek,	7.8
	Scioto Creek,	4.6
	Goschenhoppen Creek,	2.6

Delaware River (continued).
  Schuylkill River (continued).
    Perkiomen Creek (continued).

		Drainage Area Square Miles
*	Northeast Branch,	62.2
	Pleasant Spring Creek,	9.5
	Mill Creek,	4.7
	Indian Creek,	7.2
	Landis Brook,	5.3
*	Skippack Creek,	55.2
	Towamencin Creek,	10.8
	Zacharias Creek,	8.1
	Mine Run,	2.6
	Valley Creek,	23.8
	Trout Creek,	8.5
	Indian Creek,	1.6
	Abram Run,	4.9
	Stony Creek,	20.3
	Sandy Run,	4.8
	Matsunk Creek,	0.7
	Gulf Creek,	5.8
	Plymouth Creek,	7.1
	Cream Valley Creek,	1.4
	Arrowmink Creek,	1.1
	Bubbling Springs Run,	2.3
	Mill Creek,	8.1
	Trout Run,	1.3
*	Wissahickon Creek,	63.8
	Sand Run,	12.5
	Cresheim Creek,	2.4
	Land Creek,	......
	Mingo Creek,	......
	Bow Creek,	......
*	Darby Creek,	78.6
	Little Darby Creek,	3.7
	Camp Run,	0.2
	Miles Run,	0.2
	Foxes Run,	1.7
	Ithan Creek,	7.5
	Meadow Brook,	2.6
	Valley Run,	0.6
	Langford Run,	1.5
	Whetstone Run,	1.1
	Cobbs Creek,	23.4
	Indian Creek,	4.2
	East Branch,	2.2
	West Branch,	1.7
	Naylor Creek,	4.7
	Munckinipattus Creek,	4.6
	Stony Creek,	2.9
*	Crum Creek,	38.3
	Preston Run,	0.6
	Hunter Run,	3.0

Delaware River (continued).

Crum Creek (continued).

		Drainage Area Square Miles
	Trout Run,	2.8
	Holland Run,	0.9
	Dicks Run,	1.0
	Crumlynne Creek,	3,5
*	Ridley Creek,	38.2
	Dismal Run,	1.5
	Cold Spring Run,	0.9
	Hernon Run,	0.7
*	Chester Creek,	66.6
	Rocky Run,	3.0
	West Branch,	19.0
	Green Creek,	4.3
	Chrone Run,	1.8
	Crum Run,	0.9
	Marcus Hook Creek,	5.5
	Naaman Creek,	13.7
	East Branch,	4.3
	West Branch,	1.9
*	Brandywine Creek,	301.0 in Pa.
*	East Branch,	123.3
	Indian Run,	6.3
	Culbertson Run,	4.4
	Marsh Creek,	20.4
	Lyons Run,	1.7
	Blackhorse Creek,	3.9
	Beaver Creek,	17.6
	Valley Run,	4.8
	Valley Creek,	20.7
	Broad Run,	4.0
	Taylor Run,	5.6
	Blackhorse Run,	1.4
*	West Branch,	134.6
	Two Log Run,	2.8
	Birch Run,	4.6
	Rock Run,	8.1
	Sucker Run,	4.9
	Dennis Run,	2.0
*	Buck Run,	48.4
	Birch Run,	5.3
	Doe Run,	21.9
	Broad Run,	7.0
	Plum Run,	3.5
	Radley Run,	4.1
	Pocopson Creek,	9.2
	Brinton Run,	1.3
	Ring Run,	2.1
	Harvey Run,	3.7
	Dillworth Run (Total 1.2),	0.1 in Pa.
	Beaver Creek,	4.3
	Christiana Creek,	97.2 in Pa.

	Drainage Area Square Miles
Delaware River (continued).	
Christiana Creek (continued).	
* White Clay Creek,	94.6 in Pa.
Trout Run,	1.4
Egypt Run,	2.0
Broad Run,	3.8
Walnut Run,	0.5
* West Branch,	25.6
Middle Branch,	13.8
Indian Run,	0.8
Mill Creek,	0.4 in Pa.
* Red Clay Creek,	34.1 in Pa.
* West Branch,	17.6
* East Branch,	10.1

TABLE No. 7—*Upper North Branch Susquehanna Sub-basin*

*Susquehanna River (Total 27,400.0),	20,917.0 in Pa.
* North Branch (Total 11,277.0),	5,007.0 in Pa.
Cascade Creek,	2.8
Pig Pen Run,	3.3
* Starrucca Creek,	77.4 in Pa.
East Branch,	13.2 in Pa.
North Branch,	4.0 in Pa.
Hemlock Creek,	1.8
Little Roaring Brook,	2.9 in Pa.
* Canawacta Creek,	11.0
* Drinker Creek,	9.6
Lewis Creek,	3.0
Mitchell Creek,	9.3
* Saltlick Creek,	38.5
East Lake Creek,	2.8
* Du Bois Creek,	14.6
Trowbridge Creek,	4.5
* Snake Creek,	70.0 in Pa.
Silver Creek,	21.1
Rhiney Creek,	12.1
Little Snake Creek,	7.0 in Pa.
* Choconut Creek,	29.0 in Pa.
Apolacon Creek,	19.6 in Pa.
* Wappasening Creek,	61.6 in Pa.
General Pendleton Creek,	2.0
Fox Creek,	6.5
Allyn Creek,	6.1
Prince Hollow Run (Total 13.3),	9.1 in Pa.
Babcock Brook (Total 3.9),	2.5 in Pa.
Russel Creek (Total 4.5),	2.1 in Pa.
Cold Brook (Total 1.9),	1.5 in Pa.
Mud Creek,	1.7
Little Wappasening Creek,	6.0 in Pa.
Parks Creek,	3.8 in Pa.
Cayuta Creek (Total 148.0),	1.6 in Pa.
Sutterlee Creek,	9.9

Susquehanna River (continued).

North Branch (continued).

		Drainage Area Square Miles
*	Chemung River (Total 2,520.0),	831.9 in Pa.
*	Tioga River,	689.5 in Pa.
	Fall Brook,	10.7
	Carpenter Run,	4.4
	Taylor Run,	3.9
	Morris Run,	4.5
	Coal Run,	1.9
	Johnson Creek,	15.0
	Bellman Run,	6.0
	Shaws Run,	1.5
	Long Run,	1.8
	East Creek,	4.1
	Marvin Creek,	8.3
	Elk Run,	23.6
	North Elk Run,	11.9
	Canoe Camp Creek,	13.3
	Cory Creek,	22.0
	Manns Creek,	3.3
	Lambs Creek,	7.1
*	Mill Creek,	77.2
	Bear Creek,	3.0
	Bailey Creek,	7.7
	Elk Run,	20.1
	Painter Run,	4.8
*	Crooked Creek,	137.0
	Hornby Hollow,	2.3
	Daggett Hollow,	5.1
	Button Hollow,	0.5
*	Catlin Hollow Run,	28.9
	Norris Brook,	10.8
	Goodwin Hollow,	1.2
	North Run,	5.6
	Hills Creek,	16.5
	Stephenhouse Run,	5.3
	Tim Wes Run,	2.5
	Elkhorn Creek,	10.6
	Bear Creek,	3.6
	Mitchell Creek,	10.1
	Tioga Junction Creek,	11.5
	Harts Creek,	5.7
	Smith Creek,	2.8 in Pa.
*	Cowanesque River,	219.9 in Pa.
	Potter Brook,	8.8
	Cronce Brook,	3.3
	North Fork (Total 21.8),	14.6 in Pa.
	White Branch (Total 9.1),	5.6 in Pa.
	Mill Creek,	13.0
	East Beechwoods Creek,	1.5
	West Beechwoods Creek,	0.9
	Elklick Run,	2.4

Susquehanna River (continued).
North Branch (continued).
Chemung River (continued).
Tioga River (continued).
Cowanesque River (continued).

		Drainage Area Square Miles
	California Brook,	5.0
	Purple Brook,	4.3
	Jemason Creek,	16.9
	Troups Creek,	13.7 in Pa.
	North Brook,	4.2 in Pa.
	Windfall Brook,	2.7
	Holden Creek,	5.5 in Pa.
	Cummings Creek,	10.1
	Baldwin Creek,	4.8
•	Seely Creek,	88.2 in Pa.
	Daggett Creek,	10.8
•	Hammond Creek,	26.0 in Pa.
•	South Creek,	30.3 in Pa.
	Roaring Run,	8.0
•	Bentley Creek,	54.4 in Pa.
	Fall Run,	9.4
	Miller Run,	5.2
	Bucks Creek,	11.7
	Three Falls Run,	1.5
	Orcutt Creek,	8.0
	Wolcott Creek,	11.2
	Buck Creek,	7.6
	Spaulding Creek,	4.1
	Deerlick Creek,	2.4
	Cash Creek,	3.5
	Horn Brook,	4.1
	Hemlock Creek,	2.1
•	Sugar Creek,	190.5
	West Branch,	13.6
•	South Creek,	30.6
	Wolfe Creek,	5.7
	Sugar Brook,	13.9
	Leonard Hollow Creek,	17.7
	Mud Creek,	6.4
	Mill Creek,	14.9
	Tom Jack Creek,	24.2
	Mitchell Creek,	2.6
	Pond Run,	2.2
	Brown Creek,	16.5
	Alley Run,	7.9
•	Towanda Creek,	282.5
	Mill Creek,	9.4
	Mill Brook,	2.9
	Gulf Brook,	2.1
•	North Branch,	29.4
	Preacher Creek,	9.4
•	Shrader Branch (or Schrader Run),	80.9
	Millstone Run,	10.5

Susquehanna River (continued).
  North Branch (continued).
    Towanda Creek (continued).

		Drainage Area Square Miles
*	South Branch,	51.2
	Beaver Meadow Branch,	3.5
	Brown Creek,	4.5
	Satterlee Run,	4.6
	Little Wysox Creek (or Mill Creek),	10.6
	Hinman Creek,	3.2
*	Wysox Creek,	100.7
	Parks Creek,	11.2
*	Bullard Creek,	25.5
*	Johnson Creek,	27.1
	South Creek,	2.8
	Jerome Creek,	4.1
	Dry Run,	3.1
	Vought Creek,	3.5
	Bennett Creek,	8.2
	Ellis Creek,	2.4
	Burell Creek,	15.5
	Rummerfield Creek,	13.0
*	Wyalusing Creek,	216.2
*	East Branch,	60.8
	Forest Lake Creek,	10.4
	South Branch,	5.1
	Lake Stream,	13.0
	Deerlick Creek,	8.8
*	Middle Branch,	35.7
*	North Branch,	43.9
	Summers Creek,	5.3
	Wolf Creek,	2.0
	Rose Creek,	7.7
	Rockwell Creek,	12.0
	Cold Creek,	12.1
	Camp Creek,	3.9
	Middaugh Creek,	6.7
	Statford Brook,	0.4
*	Sugar Run Creek,	54.4
*	Little Tuscarora Creek,	8.0
*	Tuscarora Creek,	34.8
*	Meshoppen Creek,	117.9
	Pond Brook,	4.3
*	West Branch (or White Creek),	27.9
	Riley Creek,	17.7
*	Little Meshoppen Creek,	13.2
	Little Mehoopany Creek,	7.2
*	Mehoopany Creek,	131.2
	Hiller Brook,	1.3
	South Brook,	4.2
	Becker Brook,	2.4
	Stony Brook,	5.7
	Red Brook,	2.3
	Henry Lott Brook,	3.1
	Kasson Brook,	5.0

Susquehanna River (continued).
  North Branch (continued).
    Mehoopany Creek (continued).

		Drainage Area Square Miles
	Scouten Brook,	2.1
	Bairman Hollow,	3.1
•	North Branch,	50.0
	Wolf Run,	7.5
	Smith Cabin Run,	1.3
	Lovelton Run,	4.5
	Rogers Hollow,	2.6
•	Tunkhannock Creek,	414.4
•	Butler Creek,	37.3
	Nine Partners Creek,	16.6
•	East Branch,	65.8
	Little Creek,	2.4
•	Martin Creek,	57.5
	Dry Creek,	5.0
	Hop Bottom Creek,	19.6
•	Horton Creek,	17.1
	Field Brook,	8.0
	Bartholemew Creek,	7.5
•	South Branch,	98.3
	Kennedy Creek,	5.6
	Dalton Run,	14.5
	Sheik Creek,	9.2
	Lithia Valley Creek,	7.0
	Mill Brook,	14.3
•	Bowman Creek,	119.6
	North Branch,	5.2
	Bean Run,	1.7
	Wolf Run,	1.2
	Beth Run,	1.9
	Butternut Run,	2.4
	Cider Run,	2.4
	Sugar Run,	1.8
	Broad Hollow Run,	0.7
	Windfall Run,	2.1
	Sarber Run,	2.4
	Slife Run,	2.1
	Hettesheimer Run,	1.6
	Beaver Run,	10.8
	South Run,	3.7
	Leonard Creek,	17.6
	Roaring Run,	12.6
	South Branch,	3.7
	Marsh Creek,	10.2
	Osterhout Creek,	6.4
	Fitch Creek,	3.0
•	Buttermilk Creek,	27.3
	Hartley Creek,	6.5
	Falls Creek,	8.6
	Whitlock Creek,	12.0
	Schoonover Creek,	7.6
	Keeler Creek,	1.7

		Drainage Area Square Miles
	Susquehanna River (continued).	
	North Branch (continued).	
	Coray Creek,	11.8
	Sutton Creek,	5.8
	Gardner Creek,	16.6
	High Falls Creek,	3.0

TABLE No. 8—*Lower North Branch Susquehanna Sub-basin*

*	**Susquehanna River (Total 27,400.0),**	20,917.0 in Pa.
*	**North Branch (Total 11,277.0),**	5,007.0 in Pa.
*	**Lackawanna River,**	346.3
*	**West Branch,**	19.4
*	**East Branch,**	17.6
	Brace Brook,	2.5
	Clark Creek,	3.0
	Panther Creek,	1.0
	Elk Run,	3.8
	Coal Brook,	2.2
	Racket Brook,	5.5
*	**Fall Brook,**	13.0
	Newton Creek,	4.4
	Lees Creek,	0.6
	Shove Creek,	0.6
	Powderly Creek,	3.6
	Aylesworth Creek,	5.2
	Rush Brook,	5.8
	White Oak Run,	4.0
	Spruce Creek,	1.5
	Laurel Run,	1.9
	Grassy Island Creek,	5.2
	Wildcat Creek,	6.3
	Millers Creek (or Tinklepaugh Creek),	3.9
	Eddy Creek,	5.3
	Leggett Creek,	17.9
	Summit Lake Creek,	3.3
	Griffin Creek,	7.2
	Willow Creek,	1.6
	Hall Creek,	1.7
*	**Roaring Brook,**	57.9
	La Touche Creek,	1.4
	Creamery Brook (or Langen Brook),	2.3
	Kellum Creek,	2.6
	Oak Run,	4.9
	Gravel Creek,	0.4
	Little Roaring Brook,	5.0
*	**Stafford Meadow Brook,**	13.1
	Leach Creek,	8.6
*	**Spring Brook,**	57.6
	Plank Bridge Creek,	1.2
	Rattlesnake Creek,	9.2

	Drainage Area Square Miles
Susquehanna River (continued).	
North Branch (continued).	
Lackawanna River (continued).	
Spring Brook (continued).	
Green Run,	5.1
Trout Creek,	6.5
Covey Creek,	3.6
Dry Valley Creek,	1.4
Lidy Creek (or Little Mill Creek),	9.2
Ascension Brook (or St. Johns Creek),	8.1
Falling Springs Creek,	1.9
Abraham Creek,	19.0
• Mill Creek,	36.8
Deep Hollow,	1.1
Gardners Creek,	8.7
Laurel Run,	12.0
• Toby Creek,	37.4
Trout Brook,	4.6
Huntsville Creek,	14.8
Coal Run,	2.2
• Buttonwood Creek (or Solomon Creek),	17.6
Pine Run,	4.6
Empire Creek,	4.2
Warrior Creek,	4.2
• Newport Creek,	22.4
Wanamie Run,	6.4
Nanticoke Creek,	8.0
• Harvey Creek,	47.8
Bear Hollow Creek,	2.8
Paint Spring Run,	1.4
Pike Creek,	12.2
Fades Creek,	2.0
• Hunlock Creek,	31.3
• Shickshinny Creek,	33.9
Little Shickshinny Creek,	9.8
Black Creek,	5.1
Turtle Run,	1.8
• Little Wapwallopen Creek,	35.8
Pond Creek,	9.1
• Wapwallopen Creek,	56.9
Stetlers Creek,	0.2
Bow Creek,	4.7
Varners Run,	4.1
• Nescopeck Creek,	172.9
Oley Creek,	6.4
Little Nescopeck Creek,	14.9
• Black Creek,	62.2
Cross Creek,	2.3
Gravel Run,	0.5
Cranberry Creek,	13.6
Boyds Run,	0.9
Eagle Run,	0.9
Grape Run,	0.7
Stony Creek (or Stony Cabin Creek),	5.2

Susquehanna River (continued).
North Branch (continued).
Nescopeck Creek (continued).
Black Creek (continued).
Cranberry Creek (continued).
Stony Creek (or Stony Cabin Creek) (continued).

		Drainage Area Square Miles
	Wolffs Run,	**0.6**
	Barnes Run,	**1.2**
	East Run,	**0.6**
	Stable Run,	**0.4**
	Schaars Run,	**1.0**
	Gum Run,	**0.8**
	Grim Run,	**0.8**
	Mine Run,	**0.3**
	Deep Run,	**0.5**
	Roberts Run,	**3.0**
	Falls Creek,	**2.0**
	Scotch Run,	**2.4**
•	**Briar Creek,**	**34.2**
	West Branch,	**12.5**
	Little Briar Creek,	**17.1**
	Glen Brook,	**6.9**
	Tenmile Run,	**8.3**
•	**Fishing Creek,**	**377.7**
•	**West Branch,**	**33.8**
	Painter Run,	**8.0**
	Elk Run,	**7.4**
	Rough Run,	**3.6**
	East Branch,	**10.8**
	Coles Creek,	**13.1**
	West Creek,	**16.3**
	Spencer Run,	**1.9**
	Raven Creek,	**11.8**
•	**Huntington Creek,**	**117.9**
	Shingle Run,	**1.6**
	Arnold Creek,	**4.6**
	Lick Branch,	**2.8**
	Philips Creek,	**5.9**
•	**Kitchen Creek,**	**24.5**
	Maple Creek,	**3.9**
•	**Pine Creek,**	**30.8**
•	**Green Creek,**	**37.2**
•	**Little Fishing Creek,**	**65.3**
	Late Run,	**5.2**
	Wolfhouse Run,	**1.6**
	Lick Run,	**5.7**
	West Branch Run,	**8.7**
	Shingle Run,	**1.6**
	Spruce Run,	**8.4**
	Hemlock Creek,	**15.3**
	West Hemlock Creek,	**3.2**
	Montour Run,	**4.9**
•	**Catawissa Creek,**	**155.4**
	Spiese Run,	**0.8**

Susquehanna River (continued).
North Branch (continued).
Catawissa Creek (continued).

	Drainage Area Square Miles
Ulshafer Run,	2.1
Messers Run,	7.6
Negro Hollow Run,	2.3
Davis Run,	4.2
Rattling Run,	1.9
Dark Run,	5.2
Little Catawissa Creek,	16.5
Whisky Mill Creek,	1.8
Dresher Run,	0.9
Trexler Run,	4.5
Tomhicken Creek,	20.6
Mud Run,	3.7
Little Tomhicken Creek,	3.8
Raccoon Creek,	2.8
Crooked Run,	4.4
Beaver Run,	8.6
Fishers Run,	2.3
Scotch Run,	9.1
Furnace Run,	3.0
Gensel Run,	0.7
* **Roaring Creek,**	90.3
* **South Branch,**	36.9
Mugser Run,	12.0
Little Roaring Creek,	6.5
Logan Run,	9.6
Toby Run,	0.8
* **Mahoning Creek,**	39.5
Sechler Run,	7.6
Wilsons Run,	5.6
Gravel Run,	6.4
Johnson Run,	8.9

TABLE No. 9—*Upper West Branch Susquehanna Sub-basin*

***Susquehanna River (Total 27,400.0),**	20,917.0 in Pa.
* **West Branch,**	6,913.0
Leslie Run,	1.0
Stony Creek,	7.6
* **Brown Run,**	2.6
* **Byrne Run,**	4.4
* **Moss Creek,**	7.7
Long Run,	2.0
Douglass Run,	2.2
Amy Run,	4.0
Peg Run,	2.3
Cush Cushion Creek,	12.4
Painters Run,	1.4
Isenberg Run,	1.0
Haslett Run,	2.4
Keller Run,	1.1

Susquehanna River (continued). West Branch (continued).	*Drainage Area* *Square Miles*
King Run,	2.6
Shryock Run,	6.3
Steam Mill Run,	2.0
Beaver Run,	14.9
Spring Run,	4.5
Patchin Run,	1.3
Walters Run,	0.2
Sawmill Run,	4.6
Rock Run,	3.0
Cush Creek,	21.4
Horton Run,	1.6
Brady Run,	1.7
Martin Run,	1.2
North Run,	0.9
Deer Run,	8.1
Bear Run,	19.5
South Branch,	9.9
Whisky Run,	6.4
Clover Run,	1.1
Chest Creek,	132.2
Laurel Lick Run,	9.4
Flannigan Run,	1.5
Rock Run,	3.7
Brubaker Run,	12.9
Little Brubaker Run,	3.9
Rogues Harbor Run,	4.8
Ashcraf Run,	3.4
Pine Run,	4.3
Kings Run,	1.8
Spring Run,	2.1
North Camp Run,	4.3
Snyder Run,	2.3
Wilson Run,	9.6
Barrett Run,	2.7
McMasters Run,	1.2
Woods Run,	0.9
Tuckers Run,	1.0
Snyder Run,	5.3
Miller Run,	0.9
Laurel Run,	2.6
Haslett Run,	8.0
Curry Run,	14.0
Fryor Run,	0.7
Irish Run,	2.6
Daily Run,	1.6
McCraken Run,	2.9
Bell Run,	15.9
Poplar Run,	4.1
Hiles Run,	0.9
Passmore Run,	1.0
Porter Run,	0.7

Susquehanna River (continued). West Branch (continued).	Drainage Area Square Miles
Anderson Creek,	79.8
Little Anderson Creek,	8.9
Bloom Run,	0.9
Bear Run,	3.0
Little Anderson Creek,	15.5
Biglers Run,	7.4
Hughey Run,	1.2
Fenton Run,	1.8
Hogback Run,	4.7
Hartshorn Run,	2.3
Elk Horn Run,	0.5
Lydicks Run,	0.7
Norris Branch,	1.6
Welsh Run,	2.4
Montgomery Creek,	15.6
Tinker Run,	1.1
Horn Shanty Run,	2.7
West Branch,	1.5
North Branch,	3.0
Moose Creek,	13.9
Upper Moose Creek,	9.0
Lower Moose Creek,	2.0
Clearfield Creek,	396.4
Bradley Run,	7.1
Beaverdam Run,	10.2
Swartz Run,	5.5
Little Laurel Run,	2.7
Lost Creek,	1.8
Indian Run,	2.0
Sandy Run,	1.8
Powell Run,	11.2
Fallen Timber Run,	6.3
Beaverdam Run,	49.0
Killbuck Run,	7.8
Wycrough Run,	4.6
Slatelick Run,	20.2
Burgoon Run,	7.0
Dutch Run,	4.7
Kibler Run,	1.4
Turner Run,	4.3
Wilmer Run (or North Wilmer Run),	32.4
Hunter Run,	1.6
Hales Run,	3.3
Comfort Run,	3.4
Hackenberry Run,	6.4
South Wilmer Run,	10.7
Cofinan Run,	4.4
Porter Run,	3.2
Maplepole Run,	1.0

Susquehanna River (continued).
  West Branch (continued).
    Clearfield Creek (continued).

		Drainage Area *Square Miles*
*	**Muddy Run,**	30.6
	Little Muddy Run,	16.0
	East Branch,	2.6
	Banian Run,	2.1
	Japling Run,	3.2
	Alexander Run,	0.9
	Pine Run,	3.9
	Lost Run,	2.5
	Upper North Branch,	12.2
	Wolf Run,	1.5
	Morgan Run,	5.2
	Potts Run,	15.4
	Lost Run,	2.8
	Fork Run,	1.5
	Raccoon Run,	1.0
	Sanbourn Run,	3.4
	Camp Hope Run,	1.5
	Morgan Run,	15.1
*	**Little Clearfield Creek,**	45.7
	Campbell Run,	2.2
	Big Run,	3.2
	Wallace Run,	1.8
	Laurel Run,	1.9
	Long Run,	4.0
	Roaring Run,	12.2
	Forcee Run,	1.7
	Joke Run,	1.5
*	**Lick Run,**	30.9
	Jerry Run,	1.6
	Leonard Run,	1.2
	Bloody Run,	1.1
*	**Trout Run,**	40.3
	Robert Run,	3.1
	Dixon Run,	1.3
	Crooked Run,	1.6
	Cold Stream Run,	7.2
	Little Trout Run,	12.1
	Millstone Run,	4.3
	Chub Run,	0.5
	Surveyor Run,	4.6
	Bear Run,	1.9
	Bald Hill Run,	3.3
	Moravian Run,	17.1
	Griffin Run,	1.5
	Deer Creek,	19.4
	Big Run,	3.4
	Willholm Run,	1.4
	Alder Run,	22.0
	Brown Run,	6.5

	Susquehanna River (continued). West Branch (continued).	Drainage Area Square Miles
	Sandy Creek,	18.6
	Mowry Run,	2.1
	Basin Run,	5.3
	Rock Run,	3.4
•	Moshannon Creek,	288.1
	Roups Run,	2.9
•	Mountain Branch,	13.5
	Truman Run,	4.2
	Whiteside Run,	5.2
	Bear Run,	3.0
	Beaver Run,	19.0
	Goss Run,	3.1
	Little Beaver Run,	3.3
	Coal Run,	5.2
	Big Run,	2.5
•	Trout Run,	11.0
	Shimel Run,	2.0
	Laurel Run,	19.5
	Little Laurel Run,	9.5
	Albert Run,	1.2
•	Cold Stream,	23.6
	Clover Run,	3.3
•	Emigh Run,	4.7
	Hawk Run,	2.4
	Big Run,	2.0
•	Black Bear Run,	6.3
	Sixmile Run,	21.1
	Grove Run,	1.7
	Browns Run,	2.5
	Grass Flat Run,	1.0
	Moravian Run,	1.8
	Weber Run,	1.3
	Crawford Run,	1.3
•	Little Moshannon Creek,	55.6
	Hicklen Run,	2.2
	Sevenmile Run,	13.2
•	Mosquito Creek,	63.7
	Arnold Run,	13.6
	Saltlick Run,	3.3
	Stirling Run,	2.0
	Upper Three Runs,	18.5
	Lower Three Runs,	4.7
	Miles Run,	8.5
	Pine Run,	4.2
	Spruce Run,	6.1
	Loup Run,	3.4
	Bougher Run,	4.8
	Moore Run,	3.1
	Birch Island Run,	20.4
	Grove Run,	6.3
	Fields Run,	7.3

Susquehanna River (continued).
 West Branch (continued).

		Drainage Area *Square Miles*
	Yost Run,	7.9
	Burns Run,	9.9
	Jews Run,	1.3
•	Sinnemahoning Creek,	1,032.7
•	Driftwood Branch,	316.3
	Elk Run,	12.7
	Fishing Creek,	5.0
	Deep Creek,	8.2
	Lewis Run,	2.1
	Britton Run,	1.3
	Clear Creek,	19.8
	North Creek,	16.9
	North Run,	2.2
	Threemile Run,	5.3
•	West Creek,	58.3
	"K" Fork,	5.1
	South Fork,	6.0
	North Fork,	7.7
	Sanford Run,	5.7
	Towner Run,	1.2
•	Sinnemahoning Portage,	76.6
	Half Mile Run,	4.6
	Salt Works Branch,	10.1
	Parrer Run,	1.3
	Portage Creek,	20.3
	Sizer Run,	5.0
	Fourmile Run,	4.3
	Salt Run,	6.8
	Canoe Run,	3.1
	Iron Ore Hollow Run,	0.8
•	Hunts Run,	30.1
	Whitehead Run,	3.9
	Russel Run,	1.6
	Plank Road Run,	8.2
	Stillhouse Run,	2.8
	Square Timber Run,	4.3
•	Sterling Run,	25.2
	Mason Run,	1.6
	Big Run,	4.1
	Dry Run,	1.7
	Tanglefoot Run,	1.2
•	Bennett Branch,	356.6
	Heath Run,	1.3
	Flanders Run,	2.2
	Mountain Run,	7.7
	Wilson Run,	10.8
	Tyler Run,	7.9
	Cherry Run,	4.6
•	Kersey Run,	27.1
	West Branch,	13.0
	Beaver Run,	1.2
	Burns Run,	0.7

Susquehanna River (continued).

West Branch (continued).

Sinnemahoning Creek (continued).

Bennett Branch (continued).

		Drainage Area Square Miles
•	Laurel Run,	36.4
•	Medix Run,	30.8
•	Trout Run,	54.5
	North Branch,	2.6
•	Spring Run,	35.8
	Wolf Lick Run,	11.9
	Little Wolf Lick,	3.3
•	Dent Run,	36.4
•	Hicks Run,	28.6
	East Branch,	15.0
•	Mix Run,	36.6
	Red Run,	15.6
	Grove Run,	7.1
•	First Fork,	272.5
	Prouty Branch,	12.8
	Ayer Hill Branch,	6.4
	Big Moore Run,	18.2
	Little Moore Run,	6.7
	South Fork,	18.1
•	Freeman Run,	33.9
	West Branch,	11.7
	Nelson Run,	2.3
•	East Fork,	54.2
	Shingle Bolt Run,	2.3
	Jamison Run,	4.5
	Birch Run,	7.5
	Jordan Run,	1.5
	Logues Run,	2.5
	Norcross Run,	3.7
	Rattlesnake Run,	2.0
	Mill Run,	2.2
	Muley Run,	8.8
	Lorsbaugh Run,	4.4
	Brooks Run,	6.3
	Bailey Run,	1.1
	Short Bend Run,	2.3
	Wood Rock Run,	0.8
	House Log Run,	0.9
	Bronson Run,	2.5
	Gags Hollow,	0.9
	Lick Island Run,	7.2
	Arksill Run,	1.4
	Pepperhill Run,	0.7
	Ellicott Run,	2.2
	Wykoff Run,	24.5
	Upper Jerry Run,	8.9
	Middle Run,	4.7
	Round Island Run,	1.1

		Drainage Area Square Miles
	Susquehanna River (continued).	
	West Branch (continued).	
	Sinnemahoning Creek (continued).	
	Mill Run,	8.7
	Grass Flats Run,	3.1
	Moccasin Run,	7.2

TABLE No. 10—*Middle West Branch Susquehanna Sub-basin*

*	Susquehanna River (Total 27,400.0),	20,917.0 in Pa
*	West Branch,	6,913.0
	Cook Run,	21.6
	Smith Run,	2.4
	Milligan Run,	3.4
	Fish Dam Run,	12.3
*	Kettle Creek,	239.5
	Germania Branch,	10.0
	Indian Run,	0.6
	Wildcat Hollow,	1.9
	Long Run,	2.4
	Little Kettle Creek,	22.8
*	Cross Fork,	45.3
	Boligh Run,	2.1
	Short Run,	2.3
	Yochum Run,	2.8
	Windfall Run,	6.6
	Elklick Run,	1.0
	Stewart Run,	0.9
	Carey Run,	0.7
	Painter Hollow,	0.4
*	Hammersley Fork,	32.4
	Nelson Branch,	15.2
	Trout Fork,	9.9
	Cahoon Run,	1.9
	Spicewood Run,	3.4
	Beaverdam Run,	8.0
	Hoover Run,	1.3
	Twomile Run,	4.7
	McSherry Run,	9.0
	Shintown Run,	8.4
*	Hall Run,	11.2
*	Drury Run,	19.1
	Sandy Run,	1.7
	Stony Run,	1.1
	Pete Run,	2.0
	Paddy Run,	21.0
	Boggs Run,	3.7
*	Young Womans Creek,	90.2
	Rightman Branch,	24.4
	Laurel Fork,	4.8

Susquehanna River (continued).

West Branch (continued).

Young Womans Creek (continued).

		Drainage Area Square Miles
*	West Branch,	34.1
	Middle Branch,	18.4
	Mudlick Branch,	1.9
	Caldwell Run,	1.4
	Dry Run,	3.9
*	Hyner Creek,	25.6
	Johnson Run,	3.3
	White Run,	0.7
	Rattlesnake Run,	12.3
	South Branch,	3.8
	North Branch,	6.0
	Backer Mill Run,	13.2
	Backer Run,	21.6
	Ferney Run,	5.4
	Hillard Run,	3.4
*	Tangascootack Creek,	37.0
	North Branch,	16.8
*	Lick Run,	40.6
*	Queens Run,	15.2
	Rams Hollow Run,	4.1
	Jerry Run,	2.5
	Shingle Run,	2.5
*	Bald Eagle Creek,	781.8
	Vaughan Run,	3.8
	Sparrow Run,	3.9
	Laurel Run,	8.3
	Fishers Run,	1.4
	Williams Run,	5.0
	Mudlick Run,	1.5
	Laurel Run,	9.5
	Dicks Run,	9.1
	Dewitt Run,	4.4
	McCormick Run,	5.1
	Free Run,	2.2
*	Wallace Run,	27.7
	Moose Run,	2.4
*	Spring Creek,	146.0
	Cedar Run,	10.2
*	Slab Cabin Run,	36.5
	Roaring Run (or Shingletown Gap Run),	4.7
	Logan Branch,	12.0
*	Buffalo Run,	35.4
	Holt Run,	3.9
	Antis Run,	4.7
	Bullet Run,	4.9
	Greene Run,	1.9
	Canoe Run,	1.0
*	Lick Run,	12.9
*	Marsh Creek,	45.8
	Wensel Run,	6.2
	Confer Creek,	3.4

Susquehanna River (continued).
 West Branch (continued).
  Bald Eagle Creek (continued).

	Drainage Area Square Miles
* Beech Creek,	156.7
South Fork,	12.6
North Fork,	22.5
Cherry Run,	4.5
Little Sandy Run,	4.0
Pine Run,	3.8
Beauty Run,	13.8
Big Sandy Run,	7.2
Sulphur Run,	0.8
Wolf Run,	10.9
Panther Run,	7.9
Eddylick Run,	11.8
Logway Run,	1.2
Counsel Run,	5.1
Two Rock Run,	3.2
Three Rock Run,	1.8
Hayes Run,	4.5
* Big Run,	29.1
Monument Run,	1.4
Twin Run,	1.4
Sugarcamp Run,	1.7
McDonald Run,	3.6
Laurel Run,	4.6
* Big Fishing Creek,	183.6
Cherry Run,	9.6
* Little Fishing Creek,	47.3
Bear Run,	16.1
Dry Run,	4.2
Mosquito Run,	0.9
Cedar Run,	12.1
Long Run,	21.4
Duck Run,	1.6
Harveys Run,	4.4
* McElhatton Creek,	19.7
Spring Run,	3.9
Spring Run,	1.9
* Chatham Run,	22.0
Little Plum Creek,	3.6
Big Plum Creek,	5.7
* Pine Creek,	973.0
* Cushing Creek,	44.1
Buck Run,	2.4
Ninemile Run,	12.5
Loosey Run,	4.9
Cabin Run,	0.7
* Genesee Fork,	33.6
Dry Run,	1.0
California Creek,	4.8
Tubbs Hollow Run,	1.1
Hartle Hollow Run,	0.2

Susquehanna River (continued).
  West Branch (continued).
    Pine Creek (continued).
      Genesee Fork (continued).

		Drainage Area Square Miles
	Cushing Hollow Run,	5.6
	Flynn Hollow Run,	0.5
	Hardscrabble Hollow Run,	1.8
	Judson Hollow Run,	2.2
	Meeker Hollow Run,	3.6
	Tom Cabin Hollow Run,	1.0
	Johnson Hollow Run,	1.0
	Falling Spring Run,	1.8
•	West Branch,	67.9
•	South Branch,	27.5
	North Branch,	17.6
	Wetmore Run,	4.6
	Beech Flats,	1.4
	South Branch,	10.9
	Johnson Brook,	5.5
	Phoenix Run,	24.1
	Laurel Run,	1.6
	Scott Hollow,	1.8
	Stonylick Run,	1.3
	Little Phoenix Run,	1.9
	Elk Run,	19.6
	Long Run,	21.1
	Wattles Run,	4.3
	Blue Run,	2.4
	Bend Gully,	2.4
	Lick Run,	5.0
	Shin Hollow,	1.9
	Painter Run,	4.2
	Harrington Hollow,	1.7
•	Marsh Creek,	77.7
	Baldwin Run,	5.4
	Heise Run,	2.8
	Canada Creek,	4.4
	Straight Run,	7.6
	Right Branch,	2.2
	Left Branch,	3.6
	Asaph Run,	15.7
	Little Asaph Run,	1.5
	Darling Run,	2.8
	Bear Run,	1.5
	Fourmile Run,	5.5
	South Branch,	1.3
	Little Slate Run,	2.3
•	Babb Creek,	149.5
	Mickle Run,	3.5
	Rock Run,	4.2
•	Stony Fork,	44.4
	West Branch,	8.0
	Trout Run,	11.8

Susquehanna River (continued).

West Branch (continued).

Pine Creek (continued).

		Drainage Area Square Miles
*	Cedar Run,	45.9
	Buck Run,	2.6
	Fryingpan Run,	2.5
	Slide Island Draft,	5.5
	Jacob Run,	4.9
	Elk Run,	2.1
	Hillborn Run,	3.3
*	Slate Run,	34.4
	Cushman Fork,	2.0
	Manner Run,	1.1
	Tomb Run,	3.3
	Callahan Run,	1.9
	Stoffen Run,	1.3
	Wolf Run,	2.9
	Rock Run,	1.3
	Mill Run,	13.2
	Trout Run,	11.0
	Big Spring,	0.9
	Salmon Run,	8.1
	Miller Run,	4.2
	Callahan Run,	4.0
	Harris Run,	6.0
	Upper Pine Bottom Run,	9.9
	Lower Pine Bottom Run,	3.6
*	Little Pine Creek,	171.9
*	Blockhouse Run,	40.7
	Pack Horse Run,	5.3
	Flick Run,	3.1
	Blacks Creek,	8.5
*	Texas Run (or Zimmerman Run),	42.6
	Hugh Run,	6.7
	Opossum Run,	1.2
	Rock Run,	2.0
	Wolf Run,	3.8
	Bear Run,	5.4
	Bonnell Run,	7.0
	Lick Run,	4.7
	English Run,	14.8
	Callahan Run,	3.9
	Otter Run,	22.2
	Buckeye Branch,	5.4
	Bark Cabin Run,	6.4
	Carson Run,	0.4
	McKee Run,	1.5
	English Run,	6.3
	Ramsey Run,	8.4
	Tombs Run,	4.2
	Tombs Run Fork,	2.3
	Gamble Run,	11.3
	Furnace Run,	2.6

TABLE No. 11—*Lower West Branch Susquehanna Sub-basin*

		Drainage Area Square Miles
	*Susquehanna River (Total 27,400.0),	20,917.0 in Pa.
*	West Branch,	6,913.0
*	Nippenose Creek,	58.2
	Antis Creek,	10.6
	Steward Run,	1.5
*	Larry Creek,	78.8
	Wolf Run,	3.1
	Wendell Run,	3.1
	Buck Run,	0.9
	Second Fork,	20.1
	Big Harbor Run,	0.7
	Joe Run,	1.5
	First Fork,	13.4
	First Run,	3.9
	Dog Run,	3.1
	Canoe Run,	2.4
	Glen Run,	1.1
	Pine Run,	9.5
	Little Pine Run,	1.4
	Onenshey Run,	11.2
	Holb Run,	0.6
	Daugherty Run,	4.0
*	Mosquito Run,	13.0
*	Lycoming Creek,	276.1
	Sugar Works Run,	7.5
	Mill Creek,	12.6
	East Mill Creek,	4.0
	West Mill Creek,	8.3
*	Roaring Branch,	41.6
	Salt Spring Run,	12.0
	Rock Run,	21.1
	Third Branch,	2.0
	Second Branch,	4.8
	Hound Run,	1.3
	First Branch,	4.9
	North Branch,	3.1
	Frozen Run,	4.0
*	Pleasant Stream,	41.6
	Stack Run,	4.5
	Shoemaker Run,	1.6
	Grays Run,	23.2
	Hagerman Run,	2.6
	Trout Run,	16.2
	Hoagland Run,	21.5
	Long Run,	2.4
	Mill Creek,	12.8
	Beauty Run,	6.7
	Bottle Run,	4.3
	Buniser Run,	5.2

Susquehanna River (continued). West Branch (continued).	Drainage Area Square Miles
Hagerman Run,	11.1
Miller Run,	9.1
Sheshickon Run,	3.1
Loyalsock Creek,	492.8
South Branch,	9.0
Rocky Run,	3.7
Pigeon Creek,	9.7
Obert Creek,	3.4
Lopez Creek,	18.8
Painter Den Creek,	9.4
Spring Brook,	2.6
Wolf Run,	3.6
Glass Creek,	7.6
Flood Wood Creek,	3.6
Birch Creek,	14.6
Beaver Run,	1.6
Dutchman Run,	1.6
Mill Creek,	5.3
Pole Bridge Run,	4.9
Shanerburg Creek,	6.1
Rusty Run,	2.8
Double Run,	4.0
Little Loyalsock Creek,	91.0
Marsh Creek,	3.3
Lick Creek,	8.4
Mill Creek,	1.6
Black Creek,	12.4
Yellow Run,	1.0
Big Bottom Run,	3.7
Lick Creek,	24.8
Level Branch,	6.8
Mill Creek,	5.8
Ketchum Run,	2.8
Elk Creek,	55.2
Kings Creek,	7.4
Hoagland Branch,	24.4
Slab Run,	3.4
Mill Creek,	7.4
Dry Run,	4.4
Kettle Creek,	13.3
Ogdonia Creek,	6.5
Plunkett Creek,	22.2
Wolf Run,	2.1
West Branch,	4.0
Dry Run,	1.7
Big Bear Run,	15.2
Rock Run,	0.9
Snake Run,	0.7
Little Bear Creek,	12.8

Susquehanna River (continued).

West Branch (continued).

Loyalsock Creek (continued).

	Drainage Area Square Miles
Wallis Run,	34.7
East Branch,	5.0
Salt Run,	6.3
Roaring Run,	1.8
Murray Run,	6.7
West Mill Creek,	24.4
Martins Run,	0.7
Sugar Cane Run,	3.0
Caleb Run,	2.1
Brewer Run,	0.6
Lick Run,	3.0
Mill Creek,	20.7
Tule Run,	2.2
Turkey Run,	4.2
Carpenter Run,	12.9
Dry Run,	1.0
Margaret Run,	3.2
Wolf Run,	10.0
Muncy Creek,	216.3
Cherry Run,	3.7
Elklick Run,	6.3
Long Brook,	1.9
Deep Hollow Run,	2.2
Lewis Creek,	14.5
Big Run,	2.0
Mosen Creek,	2.6
Trout Run,	4.7
Toyland Run,	1.4
Spring Run,	2.1
Rock Run,	10.3
Lick Run,	5.4
Lake Run,	1.7
Fox Run,	4.0
Big Run,	5.1
Roaring Run,	4.0
Laurel Run,	5.9
Gregg Run,	7.6
Sugar Run,	10.3
Little Muncy Creek,	84.0
Indian Camp Run,	3.7
Beech Bottom Run,	1.4
Beaverdam Run,	12.8
Little Marsh Run,	0.7
Big Run,	5.6
Laurel Run,	12.6
Shepman Run,	1,7
Dry Run,	1.4
Glade Run,	9.7
Turkey Run,	3.6
Black Hole Creek,	16.1
Black Run,	6.6

		Drainage Area Square Miles
	Susquehanna River (continued).	
	West Branch (continued).	
*	**White Deer Hole Creek,**	**67.1**
	Spring Creek,	**16.9**
	Delaware Run,	**14.7**
	Dry Run,	**6.5**
	Spring Run,	**2.3**
	Warrior Run,	**18.8**
*	**White Deer Creek,**	**46.9**
	Fourth Gap,	**0.9**
	Third Gap,	**0.7**
	Retreat Run,	**1.2**
	South Branch,	**16.0**
	Lick Run,	**1.0**
	Rock Hill Spring,	**0.8**
	Muddy Run,	**10.4**
	Limestone Run,	**14.6**
	Housel Run,	**2.3**
*	**Buffalo Creek,**	**128.2**
*	**North Branch,**	**16.2**
*	**Rapid Run,**	**25.2**
*	**Spruce Run,**	**27.6**
	Black Run,	**4.0**
	Little Buffalo Creek,	**17.5**
*	**Chillisquaque Creek,**	**109.2**
	Beaver Run,	**7.2**
	Mud Creek,	**16.7**
	Turtle Creek,	**11.9**

TABLE No. 12—*Middle Main Susquehanna Sub-basin*

*	**Susquehanna River (Total 27,400.0),**	**20,917.0 in Pa.**
*	**Shamokin Creek,**	**137.6**
	Locust Creek,	**5.1**
	West Branch,	**2.3**
	Quaker Run,	**4.2**
	Buck Run,	**1.3**
	Coal Run,	**5.9**
	Carbon Run,	**8.8**
	Trout Run,	**3.0**
	Eagle Run,	**1.5**
*	**Little Shamokin Creek,**	**29.1**
	Plum Creek,	**10.1**
	Hallowing Run,	**7.7**
	Boile Run,	**6.0**
*	**Penns Creek,**	**558.0**
*	**Sinking Creek,**	**47.5**
	Laurel Run,	**4.7**
	Muddy Run,	**14.7**
*	**Pine Creek,**	**97.9**
	Pine Creek Hollow,	**7.0**
	Panther Gap Run,	**0.6**

Susquehanna River (continued).
Penns Creek (continued).
Pine Creek (continued).

	Drainage Area Square Miles
Witmer Run,	5.1
Big Gap Run,	0.8
Little Gap Run,	1.5
Bear Gap Run,	0.8
Hubier Run,	5.5
* **Elk Creek,**	54.5
Philips Run,	1.0
Poe Creek,	9.3
Panther Run,	2.7
Swift Run,	3.8
Weikert Run,	5.2
Corls Run,	1.6
Henstep Run,	0.7
Karl Run,	1.3
Whitethorn Creek,	4.6
Laurel Run,	16.0
Switzer Run,	10.3
Tuscarora Creek,	4.8
Wolf Run,	6.4
Laudenslager Creek,	0.9
* **Middle Creek,**	163.5
Ulsh Gap Run,	3.3
Krepp Gap Run,	2.8
South Branch,	10.3
Beaver Creek,	11.6
Beaver Spring Run,	2.2
Swift Run,	11.8
Stony Run,	1.6
North Branch,	19.9
Moyer Mill Run,	3.2
Kern Run,	10.6
Bowersox Run,	3.3
Erb Run,	2.7
* **Mahanoy Creek,**	155.5
North Branch,	5.1
Pole Run,	0.4
Coal Run (or Cold Run),	0.6
Waste House Run,	3.6
Bear Run,	0.3
Shenandoah Creek,	10.7
Fowler Run,	0.3
Kehley Run,	1.0
Baird Run,	0.4
Lost Creek,	1.2
Raven Run,	1.0
Cat Run,	0.7
Mine Run,	3.8
Little Mahanoy Creek,	10.5
Bright Run,	0.4
Rattling Run,	3.1
Big Run,	5.9

Susquehanna River (continued).
Mahanoy Creek (continued).

		Drainage Area Square Miles
	Crab Run,	3.4
	Zerbe Run,	13.1
*	Schwaben Creek,	30.1
	Mouse Creek,	7.1
	Fidlers Run,	6.9
	McKees Run,	2.4
	McKees Half Fall Run,	0.5
*	Mahantango Creek,	85.3
*	North Branch,	36.3
*	West Branch,	47.4
	Quaker Run,	4.5
	Liningers Run,	6.9
	Dobson Run,	6.8
*	Mahantango Creek,	164.6
	Little Mahantango Creek,	15.4
*	Pine Creek,	77.4
	Rausch Creek,	9.8
	East Branch,	3.9
	West Branch,	4.8
*	Deep Creek,	32.3
	Hanrost Creek,	4.3
	Deep Creek,	10.5
	Wildcat Creek,	12.9
	Barger Run,	4.2
*	Wiconisco Creek,	115.8
	Bear Creek,	4.8
*	Rattling Creek,	19.6
	East Branch,	9.6
	Nine O'clock Branch,	2.7
	Stone Cabin Run,	2.1
	West Branch,	8.8
	Wolf Run,	0.8
	Big Run,	1.0
	Keefers Run,	2.0
	Little Wiconisco Creek,	17.1
	Hunters Run,	7.3
	Gurdy Run,	5.0
*	Armstrong Creek,	32.9
	New England Run,	2.3
	Gertys Run,	0.4
*	Powell Creek,	39.2
	South Fork,	4.9
	North Fork,	9.0

TABLE No. 13—*Upper Juniata Sub-basin*

*	Susquehanna River (Total 27,400.0),	20,917.0 in Pa
*	Juniata River,	3,426.0
*	Frankstown Branch,	997.8

Susquehanna River (continued).
 Juniata River (continued).
  Frankstown Branch (continued).

		Drainage Area Square Miles
	Beaverdam Creek,	14.0
	Smoky Run,	5.2
	Boiling Spring Run,	6.0
	Pine Run,	1.6
	South Poplar Run,	13.7
	Carson Run,	5.5
	Pole Cat Run,	4.0
	Paw Paw Run,	1.0
	South Dry Run,	6.9
	McDonald Run,	1.7
•	Plum Creek (or Roaring Spring Run),	37.8
	Plum Cove Creek,	3.6
	Dry Run,	0.8
	Halter Creek,	16.2
	Poplar Run,	16.9
	Blue Knob Run,	4.5
•	Beaverdam Branch,	89.9
	Mill Run,	8.8
•	Burgoon Run,	14.8
	Glenwhite Run,	5.1
	Kittanning Run,	2.5
	Scotch Run,	1.6
	McGarvey Run,	1.1
•	Sugar Run,	9.5
	Spencer Run,	3.7
•	Blairs Gap Run,	27.6
	Blairs Run,	6.7
	Adams Run,	2.7
	Redlick Run,	0.8
	Gillans Run,	5.7
	Brush Run,	11.7
	Oldtown Run,	11.1
	Brush Creek (or Roaring Run),	3.0
	Robinsons Run,	3.8
•	Canoe Creek,	27.6
	Township Run,	0.7
•	Piney Creek,	25.9
•	Clover Creek,	48.3
	Snairs Hollow,	1.0
	Smoker Run,	2.5
	Yellow Spring,	3.7
	Fox Run,	3.2
	Water Street Run,	6.8
•	Little Juniata River,	348.9
	Kettle Creek,	3.8
	Homers Gap Run,	7.3
•	Riggles Gap Run,	11.3
	Sandy Run,	5.6
	Sugar Run,	4.7
	Bells Gap Run,	13.6

Susquehanna River (continued).
  Juniata River (continued).
    Frankstown Branch (continued).
      Little Juniata River (continued).
	Drainage Area
	Square Miles

Tipton Run,	17.8
Eagle Gap Run,	0.7
Three Springs Run,	4.2
Loup Run,	3.2
Milligan Run,	1.0
Hotchinsons Run,	3.0
Sinking Run,	8.2
Bald Eagle Creek,	48.2
Laurel Run,	10.2
Big Fill Run (or Woomers Run),	15.9
Aimy Run,	4.4
Little Run,	4.9
Vanscoyoc Run,	8.5
Decker Run,	2.9
Logan Run,	5.0
Stoner Run,	1.8
Arch Spring Run,	14.0
Spruce Creek,	111.7
Beaver Brook,	24.2
Fowler Run,	5.3
Half Moon Run,	27.9
Warriors Run (or Mark Run),	33.3
Shaver Creek,	75.2
Armond Run,	6.4
Henry Run,	2.8
Phranton Run,	4.9
Garner Run,	4.7
Gregory Run,	2.3
Globe Run,	4.2
Lightner Run,	4.5
Crooked Creek,	25.4
Standing Stone Creek,	113.9
Detweiler Run,	1.5
Laurel Run,	14.5
Muddy Run,	2.7
East Branch,	18.5
Murray Run,	8.9
Raystown Branch,	1,012.1
Deeters Run,	43.8
Threelick Run,	11.6
Breastwork Run,	8.1
Spicer Brook,	2.9
Shawnee Branch,	38.3
Burns Creek,	4.1
Keg Run,	12.1
Buffalo Creek,	25.5
Cumberland Valley Run,	19.3

Susquehanna River (continued).
  Juniata River (continued).
    Raystown Branch (continued).

		Drainage Area Square Miles
•	**Dunning Creek,**	**198.3**
	** Rocklick Creek,**	**7.1**
	** Barefoot Run,**	**10.4**
	** Georges Creek,**	**13.7**
	** West Branch,**	**3.0**
•	** Bobs Creek,**	**68.5**
	** Diamond Run,**	**0.9**
	** Wallacks Branch,**	**5.2**
	** Scrubgrass Creek,**	**19.6**
	** Mud Run,**	**4.3**
	** Adams Run,**	**14.1**
	** Oppenheimer Run,**	**10.1**
	** Brush Run,**	**2.7**
	** Earnest Run,**	**9.7**
•	**Cove Creek,**	**48.5**
	Snakespring Valley Run,	**14.5**
	Clear Creek,	**23.2**
	Greys Run,	**8.4**
•	**Shavers Creek,**	**98.5**
	** Chapman Run,**	**4.6**
•	** Brush Creek,**	**46.4**
	** South Brush Creek,**	**13.7**
	** Little Brush Creek,**	**20.9**
	** Roaring Creek,**	**10.0**
	Tub Mill Run,	**11.1**
	French Run,	**11.9**
	Sherman Valley Run,	**10.3**
	Piper Run,	**8.1**
	Kimbers Run,	**9.0**
	Sixmile Run,	**11.5**
•	**Yellow Creek,**	**95.7**
	** Beaver Creek,**	**19.0**
	Ravers Run,	**5.1**
•	**Shoups Run,**	**21.3**
	** Miller Run,**	**2.9**
	** Sugarcamp Run,**	**1.8**
	** Putts Run,**	**3.1**
	Shy Beaver Creek,	**10.2**
	Tatman Run,	**14.3**
	Coffee Run,	**7.0**
•	**Great Trough Creek,**	**96.8**
	** Yellow Branch,**	**2.8**
•	** Little Trough Creek,**	**32.1**
	** Shores Branch,**	**1.4**
	** Curfman Run,**	**0.8**
	** Wilson Run,**	**1.4**
	** Sugar Creek,**	**16.5**
	** Haw Run,**	**0.5**
	** Lick Run,**	**1.3**
	** Laura Run,**	**2.5**

	Drainage Area Square Miles
Susquehanna River (continued).	
Juniata River (continued).	
Raystown Branch (continued).	
Great Trough Creek (continued).	
Laura Run (continued).	
Spring Run,	**0.6**
Sarah Creek,	**20.4**
James Creek,	**11.0**

TABLE No. 14—*Lower Juniata Sub-basin*

***Susquehanna River (Total 27,400.0),**	**20,917.0 in Pa.**
Juniata River,	**3,426.0**
Sugar Grove Run,	**5.4**
Mill Creek,	**39.2**
Saddler Run,	**17.8**
Smith Run,	**12.7**
Hares Valley Creek,	**20.4**
Scrub Run,	**1.7**
Hill Valley Creek,	**14.4**
Singers Gap Run,	**3.8**
Aughwick Creek,	**327.0**
Sideling Hill Creek,	**96.5**
Oregon Creek,	**4.7**
Elbow Run,	**5.0**
Gibson Run,	**9.2**
Roaring Run,	**2.4**
Foster Run,	**1.2**
Wooden Bridge Creek,	**25.4**
Lick Branch,	**4.0**
Elder Branch,	**5.5**
Little Aughwick Creek,	**54.5**
Trout Run,	**4.8**
Ninemile Run,	**1.9**
Tenmile Run,	**3.2**
Plum Run,	**4.3**
Lick Run,	**3.3**
Three Springs Creek,	**36.5**
Black Log Creek,	**75.8**
Shade Creek,	**27.8**
Craig Run,	**3.5**
Old Woman Run,	**7.4**
Logan Run,	**2.2**
Fort Run,	**6.8**
Beaverdam Run,	**13.6**
Brookland Run,	**5.0**
Strode Run,	**10.9**
Minehart Run,	**1.9**
Granville Run,	**1.2**
Kishacoquillas Creek,	**194.9**
East Branch (or Lancaster Creek),	**108.0**
Honey Creek,	**18.0**
Treaster Valley Run,	**33.9**

Susquehanna River (continued).
 Juniata River (continued).
  Kishacoquillas Creek (continued).
   East Branch (or Lancaster Creek) (continued).

		Drainage Area Square Miles
*	Laurel Creek,	26.4
	Lingle Creek,	1.9
	Coopers Gap Run,	7.3
	Tea Run,	5.1
*	West Branch,	61.1
	Coffee Run,	5.8
*	Jacks Creek,	56.8
	Belltown Run,	8.4
	Long Meadow Run,	12.6
	Horning Run,	7.1
*	Lost Creek,	35.7
	Laurel Run,	4.8
	Big Run,	3.5
	Happy Hollow Run,	4.5
*	Tuscarora Creek,	256.1
	Spring Creek,	13.0
	Trough Spring Creek,	4.9
	Blocks Run,	3.0
	Georges Creek,	11.3
	Horse Valley Creek,	17.5
*	Willow Run,	25.5
*	Licking Creek,	38.9
	Doe Run,	12.5
	Delaware Creek,	11.8
	Raccoon Creek,	18.6
	Buckwheat Run,	2.6
	Kramer Run,	1.1
	Sugar Run,	2.8
*	Cocolamus Creek,	63.4
	Shade Mountain Stream,	1.8
	Stony Run,	15.0
	Dutchman Run,	2.9
	Cranes Run,	5.5
	Reiders Run,	0.4
	Wildcat Run,	9.3
*	Buffalo Creek,	69.7
	Little Buffalo Creek,	19.3
	Lutman Run,	2.2
	McKees Creek,	2.0
	Bailey Run,	2.0
	Howe Run,	3.7
	Board Run,	4.4
	Acker Run,	2.1
	White Run,	0.9
	Losh Run,	4.0
	Craig Run,	0.8

TABLE No. 15—*Lower Main Susquehanna Sub-basin*

	Drainage Area Square Miles
*Susquehanna River (Total 27,400.0),	20,917.0 in Pa.
* Little Juniata Creek,	30.8
Trout Run,	4.5
Horting Run,	2.0
Dornbach Run,	1.8
* Sherman Creek,	250.3
Pattersons Run,	5.4
Browns Run,	12.1
Houstons Run,	15.3
Andersons Run,	2.7
Lismans Run,	1.3
* Laurel Run,	35.6
North Run,	1.0
South Run,	1.5
Montour Run,	11.3
Beggars Creek,	4.6
McCabes Run,	12.0
Perry Furnace Run,	7.3
Pisgah Run,	5.1
Fishing Run,	10.6
Dark Run,	5.6
Cove Creek,	6.5
* Clark Creek,	45.2
* Stony Creek,	37.3
Rausch Creek,	3.9
East Branch,	1.3
Rattling Run,	2.2
Devils Race Course,	1.2
Fishing Creek,	18.9
Rattling Run,	1.2
Trout Run,	2.8
Fishing Creek,	17.6
* Conodoguinet Creek,	483.5
Trout Run,	4.8
* Keasey Run,	36.2
Lehman Run,	4.4
* Means Run (or Middle Spring Creek),	50.3
Gum Run,	2.8
Shirley Run,	9.8
Tumbling Run,	1.7
Furnace Run,	4.1
Thompsons Hollow,	23.9
Miles Bun Run,	7.4
Newburg Run,	6.8
Bubbles Run,	7.7
Hollow Run,	11.9
Brandy Run,	4.6

Susquehanna River (continued). Conodoguinet Creek (continued).	*Drainage Area Square Miles*
Whisky Creek,	4.1
Back Run,	6.8
Big Run,	20.3
Big Spring Run,	9.8
Lick Run,	4.6
Stines Run,	10.0
Parker Run,	7.2
Pine Run,	4.7
Letort Spring Run,	23.4
Bonny Brook,	3.8
Simmons Run,	4.7
Hogestown Run,	17.0
Trindle Spring Run,	17.0
Black Run,	4.9
Holtz Run,	4.3
• Paxton Creek,	25.3
Asylum Run,	3.7
Spring Creek,	11.6
Booser Run,	0.5
• Yellow Breeches Creek,	227.5
Hairy Spring Hollow,	5.5
Peach Orchard Run,	3.2
Beetem Hollow,	5.7
Spruce Run,	4.5
Cold Spring Run,	1.0
• Mountain Creek,	49.4
Tom Run,	4.0
Tagg Run,	4.8
Hunters Run,	5.8
Little Dogwood Run,	10.6
Dogwood Run,	8.5
Fishers Run,	13.1
Stony Run,	7.1
Pippins Run,	2.7
Stony Run,	2.3
Millers Run,	0.5
Trout Run,	3.2
Marsh Run,	2.8
Eichinger Run,	0.3
Laurel Run,	4.0
• Swatara Creek,	567.4
Panther Creek,	1.7
• Good Spring Creek,	14.8
Bailey Run,	0.6
Hollenbach Run,	0.6
Poplar Run,	1.1
Middle Creek,	6.6
Gebhards Run,	2.0
Coal Run,	1.0
Black Creek,	7.4
Lower Rausch Creek,	9.0

Susquehanna River (continued).

Swatara Creek (continued).

Lower Rausch Creek (continued).

		Drainage Area Square Miles
	Lorberry Creek,	4.7
	Stumps Run,	1.1
	Adams Run,	1.2
	Little Swatara Creek,	22.0
	Hummels Run,	0.8
	Berkelbach Run,	1.0
•	East Branch,	35.0
	Fishing Creek,	18.5
	West Branch,	7.6
	Bairds Run,	1.5
	De Haas Run,	1.0
	Evening Branch,	6.8
	Gold Mine Run,	1.4
	Black Spring Creek,	1.3
	Trout Run,	8.8
	Monroe Creek,	7.9
•	Little Swatara Creek,	96.4
	Erlakill Run,	4.6
	Deep Run,	6.0
	Elizabeth Run,	9.6
	Deep Run,	1.8
	Beach Run,	4.8
	Clarks Run,	6.2
•	Quittapahilla Creek,	77.8
	Hazel Dyke,	9.3
	Brandywine Creek,	3.3
	Beck Run,	7.7
	Killinger Creek,	14.1
•	Manada Creek,	31.9
	Walnut Run,	3.3
	Spring Creek,	23.9
	Kellock Run,	4.7
•	Beaver Creek,	26.6
	Iron Mine Run,	7.5
	South Branch,	2.2
	Fishing Creek,	17.8
	Big Spring Run,	1.6
•	Conewago Creek,	52.0
	Little Conewago Creek,	5.6
	Hoffer Creek,	5.7
	Lynch Run,	4.1
•	Conewago Creek (Total 510.8),	505.6 in Pa.
•	Opossum Creek,	35.1
	Quaker Run,	6.8
	Beaverdam Creek,	7.3
	Plum Run,	6.1
	Swift Run,	12.8
	Brush Run,	3.0

Susquehanna River (continued).

Conewago Creek (continued).

		Drainage Area Square Miles
•	South Branch (Total 74.9),	69.7 in Pa.
	Long Arm Creek (Total 5.6),	3.4 in Pa.
	Plum Creek,	8.6
	Pine Run,	6.7
	Conewago Creek,	6.5
	Beaver Creek,	17.8
	Southeast Branch,	2.2
•	Bermudian Creek,	112.2
	Lattimore Creek,	22.5
•	North Branch,	31.1
	Wolf Run,	3.2
	Mud Run,	12.4
	Doe Run,	5.0
	Red Run,	9.3
	Beaver Creek,	23.1
	North Branch,	3.7
	Stony Run,	4.5
	Laurel Run,	4.1
	Bennett Run,	14.4
•	Little Conewago Creek (or Paradise Creek),	60.9
	Fox Run,	12.7
	Manhattan Creek,	4.0
•	Conoy Creek,	18.8
•	Codorus Creek (Total 268.0),	267.8 in Pa.
•	South Branch,	116.8
	Shrewsbury Branch (or Trout Run),	3.2
	Foust Creek,	1.7
	Centerville Creek,	8.1
	Pierceville Run,	2.9
•	East Branch,	44.6
	Barshinger Creek,	5.4
	Lioners Creek,	3.0
•	West Branch (Total 90.6),	90.4 in Pa.
	Furnace Creek (Total 5.0),	4.8 in Pa.
	East Branch,	13.0
	Oil Creek,	16.9
	Willis Run,	2.9
	Mill Creek,	18.0
	Dee Run,	3.0
	Trout Run,	0.9
	Wildcat Run,	0.5
	Groves Run,	1.6
	Dugans Run,	0.8
•	Big Chickies Creek,	127.4
	Shearers Creek,	6.4
	Bayers Run,	6.6
	Rife Run,	6.7
	Dellinger Run,	3.2

Susquehanna River (continued).

Big Chickies Creek (continued).

		Drainage Area Square Miles
*	Little Chickies Creek,	45.2
	Brubaker Run,	8.5
	Back Run,	5.4
	Donegal Creek,	17.1
*	Kreutz Creek,	34.4
	Canoe Creek,	3.5
	Strickler Run,	6.1
	Canadochly Creek (or Shrontz Creek),	3.3
	Cooks Run,	0.6
	Bulls Run,	0.7
	Cabin Creek,	14.2
	Whisler Run,	0.7
	Fishing Creek,	18.9
	Beaver Run,	6.5
	Manns Run,	0.7
	Hershys Run,	0.2
	Green Branch,	1.7
*	Conestoga Creek,	474.8
	Little Conestoga Creek,	7.5
	Cedar Creek,	5.5
	Shirks Run,	2.3
*	Muddy Creek,	50.7
	Black Creek,	9.8
	Little Muddy Creek,	15.3
	Gensemer Run,	1.5
	Bowman Run,	1.0
	Groff Creek,	13.4
*	Cocalico Creek,	141.4
	Harnish Run,	4.1
	Little Cocalico Creek,	14.5
	Stony Run,	4.8
	Coover Run,	1.4
	Mohler Run,	0.8
	Indian Run,	12.6
	Meadow Run,	1.1
*	Middle Creek,	32.9
	Furnace Run,	8.2
	Seglock Run,	3.6
*	Hammer Creek,	35.8
	Buffalo Spring Run,	6.1
	West Branch,	6.1
	Poplar Run,	1.1
	New Haven Run,	17.6
	Lititz Run,	14.1
	Kurtz Run,	2.4
	Landis Run,	4.2
	Stauffer Run,	5.4
*	Mill Creek,	56.5
	Groff Run,	2.8
	Muddy Run,	8.8
	Big Spring Run,	5.8

Susquehanna River (continued).

Conestoga Creek (continued).

		Drainage Area Square Miles
*	Little Conestoga Creek,	64.1
	Bachman Run,	6.2
	Swarr Run,	8.7
	Millers Run,	1.3
	Brubaker Run,	2.8
	West Branch,	12.1
	Indian Run,	8.1
*	Pequea Creek,	153.4
	South Run,	2.4
	Miller Run,	6.3
	Richardson Run,	8.9
	Houston Run,	3.7
	Londonland Run,	10.4
	Eshleman Run,	2.0
	Watson Run,	2.8
	Walnut Run,	2.6
	Little Beaver Creek,	13.1
	Calamus Run,	2.8
	Big Beaver Creek,	21.4
	South Fork,	6.8
	Goff Run,	2.8
	Book Run,	2.5
	Huber Run,	5.0
	Goods Run,	4.4
	Silver Mine Run,	0.6
	Climbers Run,	5.8
	Trout Run,	3.6
	Otter Creek,	19.3
	Mill Branch,	2.9
	South Fork,	4.1
	Sawmill Run,	4.3
	Furnace Run,	3.0
	Tucquan Creek,	6.4
	Oakland Run,	3.3
	Kellys Run,	1.9
	Muddy Run,	9.4
*	Muddy Creek (Total 138.7),	137.1 in Pa.
*	North Branch,	44.0
	Pine Run,	5.7
	Carter Creek,	3.0
	Rambo Run,	11.2
	Bear Branch,	1.5
*	South Branch,	28.0
	Alum Run,	2.7
	Toms Run,	10.4
	East Branch,	2.8
	Bald Eagle Creek,	9.9
	Orson Run,	6.6
	Fishing Creek (Total 12.0),	11.6 in Pa.
	Neill Run,	5.7
	Scott Creek (Total 5.4),	4.2 in Pa.

	Susquehanna River (continued).	*Drainage Area Square Miles*
	Fishing Creek,	14.6
	Peters Creek,	10.6
	Puddle Duck Creek,	4.3
	Broad Creek,	0.5 in Pa.
	Deep Creek,	0.5 in Pa.
*	Conowingo Creek (Total 38.6),	33.6 in Pa.
	Jackson Run,	1.7
	Little Conowingo Creek,	6.4
	Carter Run,	2.6
*	Octoraro Creek (Total 210.2),	175.5 in Pa.
*	East Branch,	90.4
	Buck Run,	17.8
	Williams Run,	5.0
	Pine Creek,	2.7
	Valley Run,	5.8
	Knight Run,	9.0
	Ball Run,	3.5
	Bells Run,	4.3
	Muddy Run,	14.9
	Rattlesnake Run,	2.7
	Coopers Run,	6.0
	Leech Run,	5.4
*	West Branch,	48.4
	Nickel Mines Run,	4.7
	Meetinghouse Creek,	5.5
	Bowery Run,	7.7
	Stewart Run,	5.6
	Kings Run,	1.3
	Gables Run,	2.7
	Tweed Creek,	6.1
	McCreary Run,	4.3
	Blackburn Run,	2.4
	Black Run,	4.3
	Reynolds Run,	4.6
	Stone Run,	1.0 in Pa.
	Deer Creek (Total 160.0),	27.8 in Pa.
	Island Branch,	0.3 in Pa.
	Big Branch,	2.3 in Pa.
	Falling Branch,	1.4 in Pa.

Chesapeake Bay:	
Gunpowder Falls,	11.4 in Pa.
Muddy Creek,	0.9 in Pa.
Little Falls,	5.1 in Pa.
Butree Run,	2.9 in Pa.
Northeast River,	7.5 in Pa.
Northeast Creek,	7.5 in Pa.
Little Northeast Creek,	0.4 in Pa.

Chesapeake Bay (continued).	Drainage Area Square Miles
Elk River,	66.4 in Pa.
* Big Elk Creek,	54.2 in Pa.
West Branch,	10.4
McDonald Run,	1.2
East Branch,	15.6
Hodgson Run,	6.0
Ways Run,	2.4
Little Elk Creek,	12.2 in Pa.

TABLE No. 16—*Potomac Basin*

*Potomac River (Basin described),	1,570.0 in Pa.
* Wills Creek,	186.6 in Pa.
Laurel Run (Total 9.1),	8.5 in Pa.
* Brush Creek,	32.4
Shaffer Run,	12.3
* Little Wills Creek,	45.2
Wolf Camp Run,	8.9
Laurel Run,	1.2
Kennell Mill Run,	21.4
Powder Run,	1.7
Jennings Run,	8.1 in Pa.
* Evitts Creek,	80.0 in Pa.
Gap Run,	8.2 in Pa.
* Town Creek,	80.4 in Pa.
Wilson Run,	6.1
Bushy Fork,	6.6
Elk Creek,	5.9
Sweet Rock Creek,	11.9
Flintstone Creek,	18.8 in Pa.
Fifteenmile Creek,	13.9 in Pa.
Bear Camp Branch,	3.9 in Pa.
* Sideling Hill Creek,	70.4 in Pa.
West Branch,	19.4
East Branch,	16.0
Piney Creek,	13.0
Crooked Run (Total 7.2),	5.5 in Pa.
Trough Creek,	2.2
Bear Creek,	6.1 in Pa.
* Great Tonoloway Creek,	119.5 in Pa.
McKee Run,	13.9
Indian Grave Run,	3.5
Hill Run,	2.2
Oak Run,	1.7
Lick Run,	2.2
Cove Run,	3.2
* Little Tonoloway Creek,	50.9
Foster Creek,	3.3
Cumming Run,	5.4
Burns Creek,	4.8
Barnett Run,	7.8

	Potomac River (continued).	*Drainage Area Square Miles*
*	Licking Creek,	177.0 in Pa.
	Sindeldecker Run,	8.3
	Jones Run,	0.3
	Patterson Run,	11.9
*	Cove Creek,	57.7
	Back Run,	3.5
	Roaring Run,	6.1
	Spring Valley Run,	9.8
	Spring Run,	1.1
	Esther Run,	6.2
	Jordan Run,	0.8
*	Little Cove Creek,	27.8 in Pa.
*	Conococheague Creek,	499.1 in Pa.
	Birch Run,	8.5
	Long Pine Run,	2.9
	Stillhouse Run,	0.7
	Hosack Run,	3.6
	Rocky Mountain Creek,	13.8
	Raccoon Creek,	4.0
	Carbaugh Run,	11.7
	Stump Run,	1.9
	Cold Spring Run,	1.7
	Falling Spring Branch,	8.3
*	Back Creek,	84.5
	Rocky Spring Branch,	16.4
	Dennis Creek,	10.0
	Wilson Run,	11.4
	Campbell Run,	11.9
	Muddy Run,	21.8
*	West Branch (Total 197.4),	197.0 in Pa.
	Dry Run,	10.1
	North Mountain Run (or Township Run),	2.9
	Broad Run,	6.8
	Trout Run (or Buck Run),	11.5
*	Licking Creek (Total 34.6),	33.8 in Pa.
	Blue Spring Creek,	5.8
	Welsh Run,	4.6
	Antietam Creek,	115.6 in Pa.
	Little Antietam Creek,	115.6 in Pa.
*	East Branch (Total 51.8),	44.4 in Pa.
	Hayes Run,	1.5
	Tumbling Run,	2.1
	Trucker Run,	1.7
	Vineyard Run,	2.3
	Biesecker Run,	3.9
	Red Run (Total 11.4),	9.1 in Pa.
	Falls Creek (Total 5.1),	2.2 in Pa.
*	West Branch,	42.5
	Nunnery Creek,	2.9
	Marsh Run,	18.4 in Pa.

Potomac River (continued).	*Drainage Area Square Miles*
Monocacy River,	233.6 in Pa.
* Marsh Creek (Total 79.4),	78.3 in Pa.
Little Marsh Creek,	21.1
Poplar Spring Run,	1.9
Willoughby Run,	9.8
Plum Run,	2.8
* Rock Creek (Total 65.3),	65.2 in Pa.
Stevens Run,	1.0
White Run,	13.7
Littles Run,	7.4
Plum Run,	3.8
Alloway Creek (Total 24.2),	18.1 in Pa.
Plum Creek,	2.9
Piney Creek,	7.0 in Pa.
* Toms Creek,	59.4 in Pa.
Copper Run,	1.2
Miney Branch (Total 8.8),	8.7 in Pa.
Friends Creek (Total 13.5),	2.9 in Pa.
Flat Run,	8.9 in Pa.
* Middle Creek,	24.2 in Pa.
Spring Run,	2.3
Muddy Run,	6.8
Rattling Run,	1.4

TABLE No. 17—*Genesee Basin*

*Genesee River,	96.0 in Pa.
Turner Creek,	8.0
Cotton Brook,	3.8
Middle Branch,	19.3
Muddy Brook,	5.7 in Pa.
West Branch,	23.8
Rose Brook,	3.6 in Pa.

TABLE No. 18—*Erie Basin*

*Lake Erie (Basin described),	512.0 in Pa.
Ashtabula River,	8.5 in Pa.
Ashtabula Creek,	8.5 in Pa.
* Conneaut Creek,	154.0 in Pa.
Fish Creek,	3.6
Stone Run,	7.1
* West Branch (Total 33.4),	32.4 in Pa.
Middle Branch,	7.0
East Branch,	8.5
Marsh Run,	4.8
Temple Creek,	12.2
Turkey Creek,	10.2 in Pa.
Raccoon Creek,	9.2
Crooked Creek,	20.5

Lake Erie (continued).	*Drainage Area Square Miles*
* Elk Creek,	96.2
Lamson Run,	6.7
Goodban Run,	9.3
Falls Run,	4.9
Little Elk Creek,	19.6
King Branch,	1.7
Brandy Run,	4.3
Trout Run,	5.5
* Walnut Creek,	36.7
Bear Run,	3.4
Cascade Creek,	8.0
Mill Creek,	12.9
Fourmile Creek,	11.4
Sixmile Creek,	17.9
Ellicott Run (or Sevenmile Creek),	9.8
Eightmile Creek,	7.0
Twelvemile Creek,	13.1
* Sixteenmile Creek (Total 17.6),	16.9 in Pa.
Twentymile Creek (Total 36.9),	1.4 in Pa.

TABLE No. 19—*Upper Allegheny Sub-basin*

*Ohio River,	15,571.0 in Pa.
* Allegheny River (Total 11,705.0),	9,771.0 in Pa.
Lent Brook,	4.4
Steer Brook,	1.4
Rees Hollow,	1.5
Cobb Hollow,	0.7
Niles Hollow,	0.8
* Mill Creek,	32.2
Ross Hollow,	1.0
Dingman Run,	7.8
Reed Run,	4.4
Trout Brook,	4.4
* Lanninger Creek,	4.0
Fishing Creek,	23.7
East Branch,	10.5
West Branch,	10.6
Card Creek,	5.4
Sartwell Creek,	14.4
Coleman Creek,	2.3
* Allegheny Portage Creek,	47.4
Fair Run,	1.5
Rock Run,	3.0
Scaffold Lick Creek,	5.1
Cady Run,	0.9
Hamilton Run,	4.2
Long Run,	0.4
Comes Creek,	9.4
Buck Run,	1.4

Ohio River (continued).

Allegheny River (continued).

		Drainage Area Square Miles
*	Skinner Creek,	11.7
	Lillibridge Creek,	8.8
	Twomile Creek,	12.3
	Annin Creek,	10.9
	Rock Brook,	6.1
	Newel Creek,	8.3
*	Potato Creek,	239.8
*	East Branch,	28.0
	Right Hand Branch,	2.1
	Railroad Branch,	2.5
	Hamlin Creek,	3.3
	East Branch,	1.8
	Panther Run,	1.8
	Hand Brook,	1.7
	Havens Brook,	4.6
	Indian Run,	5.1
	Lost Run,	1.5
	Cogsdell Brook,	0.7
	West Branch,	17.6
	South Fork,	7.9
	Lick Run,	0.5
	Rocky Run,	1.9
	West Fork,	4.9
	Brewer Run,	7.3
	Red Mill Brook,	8.3
	Colegrove Brook,	7.9
	Robbin Brook,	6.6
	Walcott Creek,	10.1
	Smith Brook,	4.5
	Boyer Brook,	3.5
*	Marvin Creek,	58.3
	Sherman Run,	1.5
	Head Brook,	1.5
	Wildcat Run,	2.1
	Stanton Run,	2.0
	Warner Brook,	7.0
	Long Brook,	4.4
	Blacksmith Run,	10.0
	Blacksmiths Run,	1.1
	Sheldon Brook,	1.4
*	Cole Creek,	41.5
*	South Branch,	27.8
	North Branch,	9.7
	McCord Run,	3.5
	Perce Brook,	3.8
	Rice Creek,	6.3
	Fowler Run,	3.0
	Barden Brook,	6.3
*	Knapp Creek,	28.4
	Indian Creek (Total 5.3),	3.5 in Pa.

	Ohio River (continued). Allegheny River (continued).	*Drainage Area Square Miles*
•	Oswayo Creek (Total 246.0),	158.6 in Pa.
	South Branch,	21.2
	Whitney Creek,	6.4
	Elevenmile Run,	14.6
	Honeoye Creek (Total 59.7),	20.0 in Pa.
	Butler Creek,	3.1
	Horse Run,	1.8 in Pa.
	Bell Run,	19.0
	Taylor Run,	1.5
•	King Run,	7.9
•	Tuneungwant Creek (Total 160.0),	140.1 in Pa.
•	East Branch,	62.1
	Bear Run,	1.6
	Railroad Run,	6.6
	Lewis Run,	13.8
	Miam Hollow,	1.2
	Lewis Hollow,	1.0
	Sheppard Run,	3.8
	Minard Run,	10.5
	Rutherford Run,	1.8
•	West Branch,	41.6 in Pa.
	Fuller Brook,	7.1
	Cramer Brook,	1.6
	Marilla Creek,	11.6
	Gilbert Run,	3.9
	Wagoner Run,	0.8
	Bennett Brook,	4.7
	Kendall Run,	16.6
	Garlock Hollow,	1.5
	Boyd Creek,	3.0
	Bolivar Brook,	6.2
	Foster Brook,	16.7
	Harrisburg Run,	4.4
	State Line Run,	9.7 in Pa.
	Willow Creek,	24.4 in Pa.
	Tracy Run,	0.7
	Whisky Run,	1.0
	Cornplanter Run,	3.6
	Cornplanter Run,	9.4
•	Sugar Run,	47.8
	South Branch,	20.2
	Linn Branch,	2.0
	North Branch,	16.3
	Nelson Run,	5.6
	Hodge Run,	9.5
	North Branch,	4.8
•	Kinzua Creek,	181.8
	Threemile Run,	5.2
	Townline Run,	2.0
	Pine Run,	2.9

Ohio River (continued).

Allegheny River (continued).

Kinzua Creek (continued).

		Drainage Area Square Miles
	Wintergreen Run,	5.2
	Windfall Run,	3.9
	Turnip Run,	8.3
	Thundershower Run,	2.7
	Union Run,	2.3
	Little Meade Run,	1.3
	Fife Run,	11.0
	Root Run,	2.5
•	South Branch,	38.0
	Glade Run,	3.6
	Hubert Run,	8.6
	Swamp Ledge Run,	1.5
	Mudlick Run,	0.9
	Gunning Run,	0.5
	Kettle Run,	0.6
	Lightning Run,	0.7
	Mudlick Run,	3.6
•	Chappel Fork,	27.6
	North Fork,	6.8
	Briggs Run,	1.8
	Hemlock Run,	0.8
	Mead-Eddy Run,	0.4
	Campbell Run,	2.0
	Bend Run,	1.1
	Hemlock Run,	8.9
•	Browns Run,	24.6
	Dutchman Run,	8.6
	Possum Hollow,	2.3
	Morrison Run,	6.7
	Glade Run,	6.4
	Page Hollow,	2.0
	Ott Run,	1.6
•	Conewango Creek (Total 898.0),	137.0 in Pa.
	Stillwater Creek,	16.3 in Pa.
	Kiantone Creek,	18.5 in Pa.
	Fairbanks Run,	5.9
	Storehouse Run (Total 5.7),	3.0 in Pa.
	Johnny Run,	3.6
•	Ackley Run (Total 28.8),	28.5 in Pa.
	Reynold Run,	2.5
	Priest Hollow,	2.1
	Satler Run,	4.8
	Jackson Run (Total 10.3),	10.0 in Pa.
	Cable Hollow,	3.0
	Vanarsdale Run (Total 4.4),	4.1 in Pa.
	Rhine Run,	8.5
	Dougherty Run,	1.4
	Hatch Run,	6.8
	Simon Hollow,	1.1

Ohio River (continued).

Allegheny River (continued).

				Drainage Area Square Miles
	Conewango Creek (continued).			
*		Jackson Run,		31.0
			Mill Run,	6.0
		Indian Hollow,		0.7
	Sill Run,			3.2
	Morse Run,			4.6
	Grunder Run,			4.9
	Scott Run,			2.6
*	Brokenstraw Creek (Total 324.0),			254.0 in Pa.
		Coffee Creek,		21.5
			Phelps Creek (Total 7.5),	4.6 in Pa.
			Prosser Creek,	5.0
		Hare Creek (Total 22.7),		21.3 in Pa.
			Bear Run,	2.6
*		Spring Creek,		31.5
			Northwest Branch,	4.5
			Cobb Run,	2.9
			North Branch,	5.6
			Neal Run,	2.4
		Crouse Run,		17.6
			Hosmer Run,	8.0
		Blue Eye Run,		12.6
*		Little Brokenstraw Creek (Total 81.3),		50.7 in Pa.
			Cotton Creek,	1.2
			Swamp Run,	4.0
			Miles Run,	6.7
		Andrews Run,		12.9
		York Run,		3.1
		Mead Run,		5.0
		Matthews Run,		15.7
			Browns Run,	1.8
		Indian Camp Run,		2.0
		Irvine Run,		9.5
			Wilcox Run,	2.3
	Lenhart Run,			2.3
	Anders Run,			2.6
	Dunn Run,			6.8
	Clark Run,			2.8
	Thompson Run,			4.1
	Slater Run,			2.1
	Conklin Run,			3.4
	Bully Hollow Run,			2.8
	Connelly Run,			2.6
	Perry Magee Run,			5.6
	Magee Run,			0.6
	McGee Run,			1.0
	McGuire Run,			6.3
	Tidioute Creek,			17.8
		Rock Hollow Run,		7.1
		Gilmore Run,		1.6
	Gordon Run,			6.3
	Richardson Run,			0.4

Ohio River (continued).

Allegheny River (continued).

		Drainage Area Square Miles
	Dale Run,	1.0
•	East Hickory Creek,	59.2
	West Branch,	6.8
	Middle Branch,	8.3
	Camp Run,	2.9
	Queen Creek,	10.4
	Coal Bed Run,	1.5
	Little Piney Creek,	0.6
	Otter Creek,	7.9
	Beaver Creek,	12.8
	Little Hickory Creek,	7.3
	West Hickory Creek,	23.0
	East Branch,	1.7
	Main Branch,	1.5
	Hunt Run,	1.8
	Funk Run,	2.6
	German Run,	1.1
	Jayson Run,	1.1
	Dawson Run,	2.0
	Sibbold Run,	1.5
	Jamison Run,	2.5
	Tubbs Run,	7.9
	Emmett Run,	0.5
	Hunter Run,	3.4
•	Tionesta Creek,	485.4
	Tom Run,	3.0
	Wildcat Run,	7.9
	Mix Run,	1.6
	Adam Run,	1.6
	Trout Run,	1.2
	Elkhorn Run,	4.6
	Farnsworth Branch,	18.3
	Sixmile Run,	8.0
	North Fork,	3.8
	Arnot Run,	12.2
	Little Arnot Run,	3.5
	Fourmile Run,	18.2
	Flat Run,	1.4
•	Twomile Run,	29.1
	Wildcat Run,	3.8
	Windfall Run,	3.4
	Deerlick Run,	3.6
•	South Branch,	86.0
	Coon Run,	3.0
	Crane Run,	1.1
	Iron Run,	0.8
	Crane Creek,	4.6
	Fork Run,	3.4
	Bogus Creek,	4.1
	Tuttle Run,	0.9

Ohio River (continued).
Allegheny River (continued).
Tionesta Creek (continued).
South Branch (continued).

	Drainage Area Square Miles
Coon Run,	0.8
Cherry Creek,	3.0
East Branch,	38.7
Wind Run,	5.0
West Run,	7.2
Pell Run,	1.1
Messenger Run,	0.8
Mead Run,	0.8
Roberts Run,	0.4
Thad Shanty Run,	1.3
Warts Run,	0.6
Blue Jay Creek,	19.9
Rock Spring Run,	0.8
West Branch,	8.2
Cooper Run,	1.3
Bald Hill Run,	1.9
Rocky Run,	1.7
Bush Run,	3.6
Martin Run,	0.9
Wildcat Run,	0.4
Upper Sheriff Run,	4.6
Lower Sheriff Run,	5.1
Foot Run,	3.9
Minister Creek,	11.1
Porcupine Run,	3.6
Blood Run,	1.3
Logan Run,	3.5
Blacksmith Run,	0.5
Phelps Run,	1.7
Brush Camp Run,	0.7
Kingsley Run,	1.4
Bobbs Creek,	9.0
Pine Run,	3.9
Panther Run,	0.8
Minister Run,	2.2
Salmon Creek,	55.8
Little Salmon Creek,	9.8
Guiton Run,	3.1
Fourmile Run,	3.6
Twomile Run,	0.5
The Branch,	10.3
Doe Run,	0.4
Coalbank Run,	0.2
Mudlick Run,	0.4
Fork Run,	5.4
Hazleton Run,	1.1
Best Run,	0.2
Kennedy Run,	0.7

Ohio River (continued).

Allegheny River (continued).

				Drainage Area Square Miles
	Tionesta Creek (continued).			
		Lamentation Run,		3.9
		Bear Creek,		4.3
		Ross Run,		8.1
			Waite Run,	3.3
		Jake Run,		1.4
		Jug Handle Run,		1.7
		Butler Run,		0.5
		Little Coon Creek,		9.1
			Pine Hollow Run,	0.9
			Fox Run,	0.9
•		**Coon Creek,**		41.1
			Ellsworth Run,	2.6
			Judy Run,	3.8
			Walley Run,	3.5
			Turner Run,	0.9
			Little Coon Creek,	6.4
		Piney Run,		1.2
		Johns Run,		3.1
		Davis Run,		0.7
		Peters Run,		0.9
	Little Tionesta Creek,			10.7
	Holeman Run,			2.4
	Stewart Run,			11.0
	Johnson Run,			0.3
•	**Hemlock Creek,**			43.8
		Keys Run,		5.5
		James Run,		2.9
	McRea Run,			3.2
	Muskrat Run,			4.3
•	**Pithole Creek,**			42.5
		Schoolhouse Run,		1.7
		Branch Pithole Creek,		2.5
		West Pithole Creek,		9.8
		Allender Run,		2.7
	McMahon Run,			0.5
	Panther Run,			2.5
	Lamb Run,			0.8
	Horse Creek,			9.1
	Carney Run,			0.9
	Sage Run,			6.1
•	**Oil Creek,**			335.3
		West Shreve Run,		2.6
		East Shreve Run,		2.3
		Mosey Run,		8.2
		Negus Run,		11.9
			Bloomfield Run,	3.2
•		**East Branch,**		66.1
			Spaulding Run,	5.5
			Britton Run,	9.7

Ohio River (continued).
  Allegheny River (continued).
    Oil Creek (continued).

		Drainage Area Square Miles
*	**Thompson Run,**	33.3
	McLaughlin Creek (or Bogg Creek),	10.3
	Church Run,	4.2
	Hammond Run,	2.8
	Trout Run,	0.7
*	**Caldwell Creek,**	90.6
	West Branch,	19.6
	Middle Branch,	3.7
	East Branch,	14.3
*	**Pine Creek,**	29.5
	Gilson Run,	2.9
	Tub Run,	1.3
	McGee Run,	2.2
	Shreve Run,	0.9
	Husband Run,	1.1
	River Run,	0.6
	Bennehof Run,	2.5
	Cherry Tree Run,	16.1
	Cain Run (or Little Cherry Run),	2.7
	Wykle Run,	2.0
	Cherry Run,	12.6
	Breevoort Run,	0.8
	Cornplanter Run,	2.7
	Calaba Run,	0.9
	Holiday Run,	1.6
	Charley Run,	3.1
	Shaffler Run,	2.0
	Brannan Run,	1.1
	Seneca Run,	1.6
	Twomile Run,	17.8
	West Fork,	3.0
	Read Run,	1.5
	McCalmont Run,	0.9
*	**French Creek (Total 1,246.0),**	1,135.1 in Pa.
	Hubbel Run,	8.0
*	**West Branch (Total 74.6),**	50.5 in Pa.
	Darrow Brook (Total 6.2),	3.3 in Pa.
	Townley Run,	4.8
	Alder Brook,	6.4
	Bailey Brook,	4.2
	Alder Run,	6.3
*	**South Branch,**	86.4
	Spencer Run,	5.2
	Baskin Run,	10.8
	Slaughter Run,	5.5
	Beaver Run,	5.2
	Lilly Run,	4.3
	Wilson Run,	3.0
	Bentley Run,	5.4
	Thompson Run,	0.4

Ohio River (continued).
Allegheny River (continued).
French Creek (continued).
South Branch (continued).
Bentley Run (continued).

		Drainage Area Square Miles
	Lime Kiln Run,	1.6
	Shreve Run,	2.7
•	Leboeuf Creek,	61.7
	East Branch,	23.8
	Black Run,	6.9
	Bagdad Run,	0.9
•	Muddy Creek,	83.1
	Potash Creek,	3.8
	Federal Run,	9.4
	East Branch,	3.2
	West Branch,	2.4
	Mackey Run,	15.8
	Kelly Run,	9.2
	Mohawk Run,	3.9
•	Conneautte Creek,	59.7
	Torry Run,	3.9
	Little Conneautte Creek,	17.7
	Stewarts Run,	11.1
	Gravel Run,	7.9
	Wolf Run,	6.8
	Brookhouser Run,	2.6
•	Woodcock Creek,	55.3
•	Cussewago Creek,	92.2
	West Branch,	9.9
	Carr Run,	22.3
	Mill Run,	8.4
	Van Horn Run,	5.8
•	Conneaut Lake Creek,	99.6
	Inlet Run,	10.5
	Pine Run,	2.6
	Butler Run,	0.4
	Haynes Run,	2.2
	McMichael Run,	7.0
	Watson Run,	15.9
	Turkey Run,	7.0
•	Little Sugar Creek,	45.3
	Mud Run,	4.7
	Grass Run,	3.2
	Deckard Run,	4.7
	Folk Run,	2.0
	Powdermill Run,	6.4
	North Deer Creek,	18.6
	McCune Run,	4.6
	Mill Creek,	17.2
•	Sugar Creek,	172.8
•	Middle Branch,	43.7
	North Branch,	12.5
•	East Branch,	48.6
	Panther Creek,	14.0

Ohio River (continued).
Allegheny River (continued).
French Creek (continued).
Sugar Creek (continued).

		Drainage Area Square Miles
•	Lake Creek,	37.8
	Muddy Run,	0.7
	Rattling Run,	1.8
	Deep Run,	1.0
	Wolf Run,	5.7
	Beatty Run,	12.3
	Foster Run,	2.2
	Muddy Run (or Warden Run),	10.0
	Lick Run,	1.6
	Patchett Run (or Patchel Run),	6.5
	Gurney Run,	1.3
	Twomile Run (or Lower Twomile Run),	11.6
	Sisters Run,	0.5
•	East Sandy Creek,	105.0
	Tarr Kill,	12.2
	Pine Run,	15.5
	Hall Run,	12.1
	Browns Run,	2.0
	Porcupine Run,	3.1
•	Sandy Creek,	159.2
	Black Run,	4.7
	Mill Run,	3.2
	Dugan Run,	2.8
	Sandy Lake Outlet,	8.1
	McCutcheon Run,	1.4
	Butchery Creek,	4.0
	Little Sandy Creek,	22.0
•	South Sandy Creek,	32.2
	Williams Run,	6.0
	Lyon Run,	3.2
	Nicholson Run,	3.2
	Victory Run,	3.1
	Clark Run,	1.1
	Pine Hill Run (or Mays Run),	3.7
	Dennison Run,	3.9
•	Scrubgrass Creek,	39.5
	McKinley Run,	3.3
	Trout Run,	1.4
	Bullion Run,	7.3
	Roberts Run,	3.4
	Perry Run,	1.0
	Whann Run,	2.9
•	Little Scrubgrass Creek,	25.9
	North Fork,	2.1
	South Fork,	8.9
	Carrs Run,	2.0
	Shull Run,	5.2
	Mill Creek,	15.5
	Richey Run (or Ritchey Run),	7.5
	Sugar Valley,	4.8

TABLE No. 20—*Middle Allegheny Sub-basin*

	Drainage Area Square Miles
*Ohio River,	15,571.0 in Pa.
* Allegheny River (Total 11,705.0),	9,771.0 in Pa.
* Clarion River,	1,231.6
* East Branch,	110.0
County Line Run,	7.2
Instanter Creek,	12.6
Fourmile Run,	1.9
Buck Run,	1.2
Smith Run,	4.0
Sevenmile Run,	18.6
Fivemile Run,	8.7
Straight Creek,	20.4
South Branch,	6.9
Swamp Creek,	2.8
Middle Fork,	6.9
Crooked Creek,	10.4
Johnson Run,	10.9
Indian Run,	2.5
* West Branch,	90.3
* West Clarion Creek,	41.7
Large Run,	2.2
Beckwith Run,	5.5
Sicily Run,	4.0
Rocky Run,	10.5
Wilson Run,	19.9
Dalson Run,	2.3
Hoffman Run,	6.3
Oil Creek,	1.1
Wolf Run,	10.1
Clear Water Run,	2.1
Meffert Run,	3.4
Silver Creek,	7.5
Bear Creek,	1.2
Powers Run,	10.4
Little Mill Creek,	14.8
* Elk Creek,	66.8
Iron Run,	5.3
Silver Run,	5.4
Laurel Run,	7.9
Scahonda Creek,	3.7
Mill Creek,	12.4
Mohan Run,	6.2
Gallagher Run (or Aylesworth Run),	1.5
Island Run,	6.0
* Big Mill Creek,	28.8
Windfall Run,	1.1
Dog Hollow Run,	5.5

Ohio River (continued).
Allegheny River (continued).
Clarion River (continued).

	Drainage Area Square Miles
• Little Toby Creek,	124.6
Sawmill Run,	1.5
Brandy Camp Creek,	11.2
Johnson Run,	3.9
Oyster Run,	1.3
Bear Run,	9.3
Phalen Run,	0.9
Mead Run,	5.3
Boggy Run,	3.5
Whetstone Run,	3.9
Rattlesnake Run,	16.5
South Run,	1.1
West Run,	1.3
Vineyard Run,	3.0
Cowards Run,	3.5
Laurel Run,	8.5
Belmouth Run,	3.1
• Bear Creek,	41.6
Pigeon Run,	5.4
Twinlick Run,	2.1
Redlick Run,	2.9
Standing Stone Run,	6.3
Otter Run,	3.2
Shanty Run,	2.6
Windfall Run,	2.6
Little Bear Creek,	3.2
Mayhood Run,	2.9
Phillipsburg Run,	0.7
Beech Bottom Run,	4.5
Crow Run,	3.3
Irwin Run,	3.8
• Spring Creek,	87.3
Watson Branch,	13.0
Rappe Run,	2.7
Gilfoyle Run,	3.1
East Branch,	24.6
Warner Run,	1.1
Wagner Run,	2.0
Elk Run,	1.4
Bank Run,	2.0
Straight Run,	1.2
Wolf Run,	6.8
Birch Run,	0.3
Hunter Run,	7.6
Pigeon Run,	1.8
Hill Run,	2.2
Big Run,	10.4
Crow Run,	1.5
Maxwell Run,	9.6

Ohio River (continued).

Allegheny River (continued).

Clarion River (continued).

		Drainage Area Square Miles
	Elliott Run,	0.6
	Clyde Run,	3.1
	Stratton Run,	1.9
	Callen Run,	6.2
	Wyncoop Run,	6.4
•	Millstone Creek,	61.4
	East Millstone Creek,	22.8
	Clear Creek,	12.0
	Dry Run,	0.8
	Fillis Run,	1.1
	Maple Creek,	21.0
	Hulings Run,	7.0
	Bear Run,	2.3
	Coleman Run,	5.5
	Troutman Run,	1.4
	Tom Run,	9.3
	Cather Run,	21.0
	Gordon Run,	6.4
	Black Swamp Run,	1.5
	Black Run,	1.2
	Hemlock Creek,	8.0
	Blyson Run,	4.4
•	Mill Creek,	55.5
	Steel Run,	2.3
	Hugh Run,	1.5
	Jimmy Run,	2.9
	Little Mill Creek,	13.7
	Long Run,	0.8
	Kyle Run,	1.1
	Douglass Run,	6.1
	Jones Run,	3.0
	Woods Run,	1.1
	Stroup Run,	0.9
	Trap Run,	1.0
	Whites Run,	1.8
	Reed Run,	0.7
•	Toby Creek,	36.6
•	Little Toby Creek,	26.4
	Boiling Springs Run,	4.1
	Mill Creek,	3.8
	Rapp Run,	1.2
	Iron Run,	2.3
	Courtley Run,	0.9
•	Piney Creek,	69.8
	Poe Run,	2.2
	Glade Run,	3.7
	Sloan Run,	4.6
	Parsons Run,	1.6
	Little Piney Creek,	12.5

		Drainage Area Square Miles
	Ohio River (continued).	
	Allegheny River (continued).	
	Clarion River (continued).	
	Piney Creek (continued).	
	Reids Run,	6.6
	Gathers Run,	1.5
	Brush Run,	12.6
•	Deer Creek,	68.9
•	Paint Creek,	39.9
	Kelley Run,	3.2
	Licking Run,	0.8
	Reyner Run,	1.5
	Moore Run,	1.8
	Step Creek,	6.3
	Cooper Run,	1.7
	Little Paint Creek,	5.7
	Little Deer Creek,	17.5
	Boyd Run,	2.8
	Coal Run,	1.4
	Canoe Creek,	18.5
	Beaver Creek,	17.6
•	Licking Creek,	51.8
	Craggs Run,	3.0
	Little Licking Creek,	5.4
	Rinersburg Run,	2.6
	Mineral Run,	2.0
	Anderson Run,	3.0
	Cherry Run,	21.3
	Turkey Run,	13.9
	Anchor Run,	2.4
•	Bear Creek,	63.4
	Rays Run,	0.6
	Silver Creek,	7.2
	South Branch,	14.6
	North Branch,	16.7
	Latshaw Run,	1.6
	Rattlesnake Run,	3.1
	Binker Valley,	3.6
	Black Fox Run,	8.2
	Fiddlers Run,	2.1
	Crozier Hollow,	0.9
	Birch Run,	0.7
	Armstrong Run,	0.6
	Catfish Run,	9.4
	Sugar Creek,	17.0
	Long Run,	1.3
	Pine Run,	2.3
	Holder Run,	2.9
	Cove Run,	2.0
	Harts Run,	1.9
	Whisky Run,	0.7
	Snyders Run,	3.7
	Huling Run,	10.8

	Ohio River (continued). Allegheny River (continued).	*Drainage Area* *Square Miles*
•	Redbank Creek,	585.5
•	Sandy Lick Creek,	235.5
	Mountain Branch,	12.6
	Coal Creek,	5.7
	Sugarcamp Run,	7.4
	Pentz Run,	6.1
•	Falls Creek,	23.4
	Wolf Run,	9.0
	Painter Run,	1.6
	Pitch Pine Run,	2.0
	Solater Run,	13.6
	Fehley Run,	2.5
	Mix Run,	3.6
	McCreight Run,	1.8
	Trout Run,	9.3
	Camp Run,	2.2
	Cable Run,	1.0
•	Mill Creek,	54.9
	Horam Run,	9.6
	Fivemile Run,	7.8
	Hosawandle Run,	1.3
	Little Mill Creek,	10.3
	Laurel Run,	3.6
	Fivemile Run,	17.1
	Kirkpatrick Run,	5.2
•	North Fork,	97.2
	Hetrick Run,	5.9
	Nichols Run,	1.3
	Lucas Run,	4.0
	South Branch,	7.3
	Beaverdam Branch,	2.1
	Seneca Run,	7.6
	Elk Run,	7.2
	Clear Run,	3.4
	Douglas Run,	2.5
	Shippen Run,	4.5
	Craft Run,	3.9
	Pekin Run,	10.4
	Redlick Run,	3.4
	Yoeman Run,	1.3
	Sugarcamp Run,	1.5
	Cedar Run (or Coder Run),	9.8
	Campbell Run,	2.9
	Clement Run,	1.5
	Knapp Run,	1.7
	Welsh Run,	3.8
	Runaway Run,	3.0
	Carrier Run,	1.9
	Beaver Run,	8.1
	Eckler Run,	1.5
	Tar Run,	2.9

Ohio River (continued).

Allegheny River (continued).

Redbank Creek (continued).

		Drainage Area Square Miles
•	Little Sandy Creek,	78.1
	Middle Branch,	14.6
	Indian Camp Run,	7.0
	Lick Run,	3.3
	Big Run,	18.3
	McCracken Run,	2.8
	Reits Run,	3.7
	Ferguson Run,	1.6
	Cherry Run,	5.3
	Milliron Run,	1.9
	Miller Run,	0.6
	Pine Creek,	12.1
	Town Run,	9.4
	Middle Run,	2.0
	Leisure Run,	6.5
	Long Run,	2.6
	Leatherwood Creek,	21.2
	West Fork,	3.7
	Jack Run,	3.3
	Middle Run,	2.3
	Rock Run,	2.0
	Wildcat Run,	14.2
	East Fork,	3.9
	Fiddlers Run,	5.4
•	Mahoning Creek,	424.4
	Stump Creek,	3.2
•	East Branch,	42.9
	Beech Run,	2.8
	Laurel Run,	6.1
	Clover Run,	11.5
	Lost Run,	2.2
	Stony Run,	1.1
	Big Run,	20.0
	Turnip Run,	2.3
	Laurel Run,	2.8
	McKee Run,	3.4
	Windfall Run,	1.4
	Trout Run,	2.0
	Rook Run,	1.6
	Jackson Run,	3.0
•	Canoe Creek,	30.4
	Stiver Run,	2.0
	Painter Run,	3.0
	Ugly Run,	8.4
	Smith Run,	0.8
	Elk Run,	12.1
	Little Elk Run,	3.3
	Cold Spring Run,	1.0
	Sawmill Run,	4.4
	Williams Run,	1.6

Ohio River (continued).

Allegheny River (continued).

Mahoning Creek (continued).

		Drainage Area Square Miles
	Rose Run,	4.0
	Nicely Run,	1.4
	Dutch Run (or Kippert Run),	5.9
	Crossman Run,	2.2
	Perryville Run,	2.5
	Foundry Run,	3.7
	Steer Run,	1.6
	Carr Run (or Kerr Run),	3.3
	Hamilton Run,	3.8
	Sugarcamp Run,	2.5
•	Little Mahoning Creek,	81.0
	East Run,	6.3
	Rairigh Run,	3.1
	North Branch,	14.5
	Straight Run,	6.7
	Salsgiver Run,	2.3
	Rishell Run,	0.5
	Barrett Run,	0.6
	Brewer Run,	1.9
	Beech Run,	1.4
	Broadhead Run,	3.5
	Hess Run,	1.0
	Leasure Run,	2.5
	Crooked Run,	3.8
	Pickering Run,	6.9
	Mudlick Run,	6.1
	Ross Run,	7.4
	Foundry Run,	1.7
	Glade Run,	9.4
	Camp Run,	3.8
•	Pine Run,	32.4
	Middle Branch,	1.8
	Caylor Run,	1.6
	Eagle Run,	1.8
	Painter Run,	2.5
	Nye Branch,	4.4
	Sugarcamp Run,	1.4
	Mudlick Creek,	3.7
	Little Mudlick Creek,	4.5
	Cathcart Run,	2.2
	Scrubgrass Creek,	10.2
•	Pine Creek,	51.5
•	South Fork,	38.4
	South Branch,	8.0
	North Branch,	11.3
	Laurel Run,	0.6
	Deaver Run,	1.1
	North Fork,	12.8
	Bullock Run,	2.5
	Hays Run,	2.2

	Ohio River (continued). Allegheny River (continued).	Drainage Area Square Miles
	Limestone Run,	10.2
*	Cowanshannock Creek,	62.8
	Spruce Run,	2.6
	Craig Run,	1.7
	Huskins Run,	6.3
	Long Run,	1.2
	Spra Run,	2.9
	Mill Run,	7.2
	Garrett Run,	8.7
	Rupp Run,	2.8
	Graff Run (or Fort Run),	1.7
	Tub Mill Run,	1.9
*	Crooked Creek,	290.0
	Rayne Run,	6.6
	Brush Run,	2.6
	Pine Run,	9.1
	Getty Run,	2.0
	Twomile Run,	1.7
*	McKee Run,	14.0
	Fulton Run,	4.3
	Dark Hollow Run,	3.3
	Mitchell Run,	3.2
	Curry Run,	11.4
	Anthony Run,	2.3
	Cheese Run,	3.6
	Anthony Run,	5.3
	Walker Run,	2.3
*	Plum Creek,	80.0
*	South Branch,	39.9
	Goose Run,	2.9
	Leasure Run,	3.0
	Reddens Run,	3.7
	Sugarcamp Run,	4.6
	Mudlick Run,	1.5
	North Branch,	21.0
	Dutch Run,	6.4
	Gobbler Run,	4.6
	Craig Run,	2.8
	Sugar Run,	2.6
	Lindsay Run,	1.8
	Fogley Run,	3.3
	Long Run,	1.0
*	Cherry Run,	26.8
	North Branch,	10.1
	Pine Run,	3.8
	Elk Run,	2.0
	Campbell Run,	6.1
*	Glade Run,	25.7
	Nicholson Run,	6.8
	Tayler Run,	5.6

	Drainage Area Square Miles
Ohio River (continued).	
Allegheny River (continued).	
Watson Run,	0.9
Hill Run,	1.2
Knapp Run,	1.8
Dock Hollow,	2.6

TABLE No. 21—*Lower Allegheny Sub-basin*

*Ohio River,	15,571.0 in Pa.
* Allegheny River (Total 11,705.0),	9,771.0 in Pa.
* Kiskiminitas River,	1,891.5
* Conemaugh River,	1,375.7
* Stony Creek,	465.5
Calendar Run,	26.0
Clear Run,	6.0
Rhoads Run,	9.3
Boone Run,	4.9
Schrock Run,	4.9
Buck Run,	3.1
Grove Run,	2.8
Lamberts Run,	3.9
Wells Creek (or Ferguson Branch),	17.4
Beaverdam Creek,	18.7
Oven Run (or Uben Run),	6.9
Fallen Timber Run,	2.5
* Quemahoning Creek,	98.8
* North Branch,	24.6
Spruce Run,	3.0
Beaverdam Run,	5.4
Pickings Run,	9.5
Roaring Run,	11.9
Twomile Run,	5.4
Higgins Run (or McConaughy Run),	5.8
* Shade Creek,	98.4
* Dark Shade Creek,	32.9
Coal Run,	3.3
Shingle Run,	3.2
Little Dark Shade Creek,	4.4
Laurel Run,	10.0
Beaverdam Run (or Beaver Run),	6.7
* Clear Shade Creek,	31.4
Cub Run	3.2
Piney Run,	9.5
Hinson Run,	2.4
Roaring Fork,	12.8
Spruce Run,	2.5
* Paint Creek,	37.0
Babcock Creek,	4.4
Weaver Run,	7.3
Seese Run,	4.5

		Drainage Area Square Miles
	Ohio River (continued).	
	Allegheny River (continued).	
	Kiskiminitas River (continued)	
	Conemaugh River (continued).	
	Stony Creek (continued).	
	Paint Creek (continued).	
	Little Paint Creek,	13.0
	Kaufman Run,	1.6
•	Bens Creek,	57.6
	South Fork,	23.3
	North Fork,	11.9
	Hackenman Hollow,	1.4
	Dalton Run,	2.4
	Mill Creek,	6.5
	Samo Run,	3.2
	Solomon Run,	8.5
	Berkebile Run,	1.2
	Falls Run,	1.6
	Shingle Run,	0.6
	Cherry Run,	2.6
•	Little Conemaugh River,	187.9
	Bear Rock Run,	6.8
	Christie Hollow,	1.3
	Burgoon Run,	2.1
	Bens Creek,	8.0
	Trout Run,	9.8
	Ivy Run (or Farren Run),	1.5
	Kane Run,	3.1
•	North Branch,	31.7
	Roaring Run,	14.4
	Sanders Run,	0.9
	Roberts Run,	2.3
	Settlemeyers Run,	2.4
	Laurel Run,	5.7
	Rio Grande Run,	2.1
•	South Fork,	61.7
	Bear Hollow,	0.5
	Coon Hollow,	1.0
	Rachel Run,	0.6
	Laurel Run,	0.7
	Bottle Run,	0.8
	Little Yellow Run,	0.6
	Lick Run,	1.3
	Beaverdam Run (or Beaver Run),	8.2
	Cedar Run,	3.2
	Yellow Run,	10.4
	Otter Run,	4.7
	Laurel Run,	9.5
	Mud Run,	2.6
	Birch Run,	0.8
	Topper Run,	1.4
	Sandy Run,	8.9
	Flenners Run,	0.7

Ohio River (continued).
Allegheny River (continued).
Kiskiminitas River (continued).
Conemaugh River (continued).
Little Conemaugh River (continued).
South Fork (continued).

		Drainage Area Square Miles
	Croyle Run,	0.2
	Saltlick Run,	11.4
	Little Saltlick Run,	4.3
	Custer Run,	1.0
	Clapboard Run,	4.3
	Peggys Run,	1.4
	Hinckston Run,	15.1
	Elk Run,	2.1
	St. Clair Run,	7.7
	Gray Run,	1.7
	Strayer Run,	1.5
	Laurel Run,	13.9
	Wildcat Run,	2.0
	Clark Run,	0.7
	Findlay Run,	9.9
	Trout Run,	6.4
	Big Spring Run,	5.7
	Laurel Run (or Baldwin Run),	9.6
	Richards Run,	6.7
•	Tub Mill Creek,	66.0
•	Hendricks Run,	33.4
	Snyder Run,	8.2
	Toms Run,	7.5
•	McGee Run,	26.1
	Millwood Run,	2.2
	Trout Run,	0.5
	Stone Run,	12.5
•	Blacklick Creek,	412.0
•	South Branch,	47.6
	Eavens Run,	1.6
	Stewart Run,	7.0
	James Run,	1.3
	Rager Run,	1.3
	Pergrin Run,	1.2
	Lincoln Run,	1.8
	Coalpit Run,	3.3
	Shuman Run,	2.2
•	North Branch (or Vetera Branch),	69.7
	Shufs Run,	2.3
	Teakettle Run,	3.8
	Dutch Run,	8.2
	Findlay Run,	4.6
	Elk Creek,	22.9
	Carney Run,	3.5
	Rummel Run,	4.7
	Ramsey Run,	0.6

Ohio River (continued).
Allegheny River (continued).
Kiskiminitas River (continued).

		Drainage Area Square Miles
	Conemaugh River (continued).	
	Blacklick Creek (continued).	
	Mardis Run,	6.0
	Brush Creek,	23.9
	Spruce Hollow,	1.9
	South Branch,	3.0
	Little Brush Creek,	4.8
•	Twolick Creek,	190.2
	South Branch,	21.9
	Eakins Run,	2.9
	Repine Run,	6.3
	Side Run,	2.5
	Rook Run,	1.0
	Whitaker Run,	2.7
	North Branch,	11.1
	Browns Run,	1.6
	Buck Run,	3.1
	Dixon Run,	10.0
	Penn Run,	7.5
	Allen Run,	2.0
	Ramsey Run,	4.7
	Whites Run,	10.7
	Marsh Run,	2.4
	McCarthey Run,	4.2
•	Yellow Creek,	67.1
	Laurel Run,	3.2
	Ross Run,	3.1
	Laurel Run,	5.0
	Little Yellow Creek,	17.6
	Tearing Run,	4.7
	Cherry Run,	15.9
	Muddy Run,	7.5
	Fox Run,	0.6
	Grays Run,	1.9
	Stewart Run,	7.3
•	Aultmans Run,	31.2
	Reeds Run,	7.3
	Neal Run,	3.1
	Coal Run,	2.6
	Miller Run,	2.1
	Roaring Run,	3.3
	Spruce Run,	6.0
	Boatyard Run,	5.0
	Elders Run,	2.7
•	Loyalhanna Creek,	300.0
	Linn Run,	10.4
	Fish Run,	0.7
	Grove Run,	1.3
	Rock Run,	1.2
	Furnace Run,	13.3

Ohio River (continued).

Allegheny River (continued).

Kiskiminitas River (continued).

Loyalhanna Creek (continued).

		Drainage Area Square Miles
	Laughlintown Run,	12.1
	McMilan Run,	3.2
	Furnace Run,	4.6
	Little Run,	1.9
	Mill Creek,	21.1
	Middle Fork,	4.8
	South Fork,	2.7
	Twomile Run,	5.4
	Coalpit Run,	13.4
	Trout Run,	5.1
•	Fourmile Run,	39.3
	Miller Run,	3.6
•	Ninemile Run,	20.6
	Armel Run,	3.5
	Sugarcamp Run,	......
	Indian House Run,	......
	Whitney Run,	1.4
	Indian Camp Run,	3.1
	Sawmill Run,	2.1
	Monastery Run,	12.3
	Fourmile Run,	8.8
	Saxman Run,	5.9
	Union Run,	7.4
	Crabtree Creek,	18.7
	Little Crabtree Creek,	6.8
	Whitethorn Creek,	10.3
	Serviceberry Run,	2.0
	Colby Run (or Getty Run),	6.6
•	Blacklegs Creek,	45.4
	Whisky Run,	5.1
	Hooper Run,	3.5
	Harpers Run,	2.6
	Marshall Run,	4.2
	Big Run,	8.8
	Sulphur Run,	1.8
	Long Run,	8.0
	Walford Run,	9.8
	Flat Run,	2.0
	Roaring Run,	14.1
	Rattling Run,	4.5
•	Beaver Run,	54.8
	Porters Run,	4.9
	Thorn Run,	6.1
	Poke Run,	6.8
	Pine Run,	17.6
	Carnahan Run,	14.1
	Guffy Run,	3.9

Ohio River (continued).

Allegheny River (continued).

Kiskiminitas River (continued).

		Drainage Area Square Miles
	Brady Run,	3.7
	Elder Run,	4.3
*	Buffalo Creek,	170.3
	Buffalo Run,	19.0
	Little Buffalo Run,	14.3
	Patterson Creek,	21.7
	Long Run,	5.3
	Marrowbone Run,	3.2
	Rough Run,	18.2
	Sipes Run,	1.8
	Cornplanter Run,	4.3
	Pine Run,	7.3
*	Little Buffalo Creek,	25.9
	Sarver Run,	9.0
	Chartiers Run,	10.7
*	Bull Creek,	50.0
	Rocky Run,	4.9
	McDowell Run (or Howe Run),	4.0
	Little Bull Creek,	11.9
	Wilson Run,	6.1
	Bailey Run,	2.0
	Crawford Run,	1.9
*	Pucketa Creek,	36.2
	Little Pucketa Creek,	10.3
	Riddle Run,	1.7
	Tawney Run,	2.6
	Blacks Run,	0.6
*	Deer Creek,	51.3
	West Branch,	3.6
	Dawson Run,	4.5
	Cedar Run,	4.0
	Rawlins Run,	1.9
	Long Run,	1.4
	Little Deer Creek,	13.8
	Guys Run,	2.1
	Powers Run,	0.9
	Plum Creek,	20.8
	Sandy Creek,	3.4
	Squaw Run,	8.6
	Stonycamp Run,	0.8
	Guyasuta Run,	1.0
*	Pine Creek,	67.2
	Fish Run,	2.4
	Wexford Run,	2.2
	Rinaman Run,	1.5
	North Fork,	9.9
	Montour Run,	5.4
	Willow Run,	4.3
	Crouse Run,	4.2

	Drainage Area Square Miles
Ohio River (continued).	
Allegheny River (continued).	
Pine Creek (continued).	
Gourdhead Run,	4.1
McCastin Run,	1.0
Little Pine Creek,	6.0
Little Pine Creek,	7.1
Girty Run,	13.4
Spring Garden Run,	2.0

TABLE No. 22—*Monongahela Sub-basin*

***Ohio River,**	15,571.0 in Pa.
* **Monongahela River** (Total 7,340.0),	2,728.0 in Pa.
Robinson Run,	0.6 in Pa.
Crooked Run,	4.2 in Pa.
* **Cheat River** (Total 1,427.0),	98.0 in Pa.
* **Big Sandy Creek,**	79.2 in Pa.
Braddock Run,	1.4
Chaney Run,	3.1
McIntire Run,	3.4
Stony Run,	8.2
Quebec Run,	14.8
Laurel Run,	10.9
Piney Run,	2.9
Long Run,	1.4
* **Little Sandy Creek,**	25.1 in Pa.
Feik Run (Total 13.0),	8.1 in Pa.
Laurel Run,	3.8 in Pa.
Patterson Run,	2.1 in Pa.
Rubles Run,	7.8 in Pa.
Grassy Run,	6.3
* **Dunkard Creek** (Total 200.1),	123.5 in Pa.
* **Pennsylvania Fork** (Total 37.8),	32.6 in Pa.
Taylor Run,	0.6
Six Run,	0.7
Brushy Fork (Total 1.9),	0.1 in Pa.
Garrison Fork,	6.7
Bloody Run,	2.2
Hennen Run,	0.6
Pumpkin Run (Total 1.5),	0.4 in Pa.
Clawson Run,	1.1
Toms Run,	17.4
Blockhouse Run,	8.3
Fordyce Run,	2.2
West Virginia Fork (Total 26.7),	0.4 in Pa.
Hoovers Run,	11.3
Tustin Run,	2.1
Roberts Run,	12.1
Rush Run,	1.7
Rudolph Run,	10.0
Sharp Run,	1.5

Ohio River (continued).

Monongahela River (continued).

Dunkard Creek (continued).

	Drainage Area Square Miles
Hackelbenden Run,	2.1
Blacks Run,	0.8
Fox Run,	2.4
Shannon Run,	10.0
Hobbs Run,	1.7
Little Shannon Run,	2.5
Bacon Run,	1.1
Hobbs Run,	0.7
Calvin Run,	5.5
North Branch,	1.8
Glade Run,	1.4
Meadow Run,	7.7
Bowen Fork,	1.5
• George Creek,	65.7
Askon Hollow,	1.7
White Rock Hollow,	0.9
Cave Hollow,	2.0
Muddy Run,	5.9
Mountain Creek,	17.0
Hector Hollow,	1.4
Lowe Hollow,	0.9
South Fork,	6.7
Yorks Run,	17.1
Croziers Run,	3.2
War Branch Run,	1.5
Jacobs Creek,	7.8
Cats Creek,	4.1
• Whiteley Creek,	55.2
Dyers Fork,	9.9
Mt. Phoebe Run,	1.6
Lanz Run,	3.9
Frosty Run,	4.6
Woods Run,	1.4
Big Run,	1.4
Little Whiteley Creek,	8.7
Browns Run,	17.6
South Branch,	4.7
North Branch,	8.7
Middle Run,	4.3
Antram Run,	1.3
Wallace Run,	2.4
• Muddy Creek,	32.0
South Branch,	7.3
Glade Run,	3.3
Minnow Run,	1.5
Pumpkin Run,	6.2
Bush Run,	1.1
Bates Run,	1.3

Ohio River (continued).

Monongahela River (continued).	*Drainage Area Square Miles*
• Tenmile Creek,	338.2
Crafts Run,	3.8
Short Creek,	8.1
Lick Run,	0.7
Hamestring Run,	0.6
Bane Creek,	17.6
Horne Run,	2.2
Smith Run,	1.5
• Little Tenmile Creek,	27.4
Shipe Run,	1.3
Potato Run,	0.9
Brush Run,	3.3
Pine Run,	1.6
Patterson Run,	2.2
Daniels Run,	17.4
Little Daniels Run,	5.1
Barrs Run,	2.5
Plum Run,	7.1
• South Fork,	199.3
Maranda Run,	2.1
Lick Run,	2.5
Grays Fork,	8.4
Scott Run,	1.7
Clover Run,	2.3
McCourtney Run,	21.7
Garner Run,	6.0
House Run,	4.5
Hoge Run,	1.5
Hargus Creek,	7.4
Lightner Run,	1.8
Bush Run,	1.8
Pursley Creek,	13.6
Stewart Run,	1.8
• Browns Creek,	45.9
Brush Fork,	7.1
Bates Fork,	13.8
Hopkins Run,	1.3
Overflowing Run,	2.1
Wisecarver Run,	3.9
Smith Creek,	10.7
Purman Run,	2.7
Jackson Run,	1.0
Sugar Run,	1.3
Laurel Run,	5.2
Grimes Run,	2.5
Braden Run,	3.9
Ruff Creek,	26.9
Boyd Run,	2.3
Craynes Run,	5.5
Craig Run,	1.6
Browns Run,	2.4
Castile Run,	6.4

Ohio River (continued).

Monongahela River (continued).

Tenmile Creek (continued).

	Drainage Area Square Miles
Black Dog Hollow,	2.2
Fishpot Run,	5.2
Meadow Run,	1.6
Kelly Run,	1.3
Rush Run,	2.8
• Dunlap Creek,	41.7
Saltlick Run,	4.5
Fourmile Run,	3.2
Lilly Run,	3.4
Cox Run,	3.7
• Redstone Creek,	108.8
Hutchinson Run,	3.4
Lick Run,	6.3
Benningtons Spring Run,	2.1
Coallick Run,	5.9
Cove Run,	12.9
Shutes Run (or Shupes Run),	5.7
Coolspring Run,	3.5
Rankin Run,	2.3
Bute Run,	7.0
Craig Branch,	1.6
Jennings Run,	10.3
Fans Run (or Paines Run),	1.6
Bolden Run,	4.9
Allen Run,	4.3
Crabapple Run,	4.4
Washwater Run,	1.6
Row Run,	4.8
Colvin Run,	2.7
• Pike Run,	28.6
Little Pike Run,	4.9
Gorby Run,	4.5
Lilly Run,	2.1
Little Redstone Creek,	12.7
Lamblick Run,	1.1
Downers Run (or Nauvoo Hollow Creek),	6.5
Mill Run,	1.5
Lutz Run,	2.4
Maple Creek,	10.4
South Branch,	5.7
Wolf Harbor,	0.5
Becket Run,	3.4
Sunfish Run,	1.5
• Pigeon Creek,	58.9
South Branch,	11.1
Center Branch,	6.8
North Branch,	12.8
Sawmill Creek,	4.6
Taylors Run,	3.5

Ohio River (continued).

Monongahela River (continued).

	Drainage Area Square Miles
Dry Run,	2.0
Mingo Creek,	21.6
Sugar Run,	1.3
Froman Run,	1.9
Huston Run,	0.9
Kelly Run,	2.2
Perry Mill Run,	4.0
Lobbs Run,	3.8
Hayden Run,	4.6
Wiley Run,	4.1
• Peters Creek,	52.1
Piney Fork,	13.8
Catfish Run,	3.8
Lick Run,	8.4
Mineral Run,	0.8
Beam Run,	1.9
Lewis Run,	5.8
• Youghiogheny River (Total 1,732.0),	1,265.4 in Pa.
Buffalo Run,	1.4 in Pa.
Glade Run,	1.4 in Pa.
Mill Run,	3.9 in Pa.
Chub Run,	2.2 in Pa.
Collier Run,	0.7 in Pa.
Reason Run (Total 1.5),	0.6 in Pa.
Braddock Run,	4.7
Hall Run,	12.9 in Pa.
Stuck Hollow (Total 3.8),	3.2 in Pa.
Tub Mill Run,	5.7
• Casselman River (Total 576.0),	479.6 in Pa.
Big Shade Run,	3.8 in Pa.
Flag Run,	1.8
Meadow Run (Total 7.5),	2.1 in Pa.
Tub Mill Run,	14.4
Big Piney Run (Total 34.1),	14.4 in Pa.
Little Piney Run,	6.3
Flaugherty Creek,	22.4
Little Flaugherty Creek,	3.3
Stunn Run (or Stamm Run),	2.5
Elklick Run,	17.5
Cranberry Run,	3.5
Bluelick Creek,	15.5
Swamp Creek,	3.0
• Buffalo Creek,	31.0
Bixie Run,	11.1
• Coxe Creek,	55.5
Kimberlin Run,	9.3
West Branch,	10.0
Rice Run,	2.8
Wilson Run,	6.3
Scrub Glade Run,	7.5

Ohio River (continued).
Monongahela River (continued).
Youghiogheny River (continued).
Casselman River (continued).

	Drainage Area Square Miles
• Iser Run (or Townline Run),	12.9
Laurel Run,	6.5
Sand Run,	1.4
Lost Run,	2.7
Negro Glade Run,	12.7
• Whites Creek (Total 37.0),	29.5 in Pa.
Christner Run,	5.9
Shoemaker Run,	0.8
Hoy Run,	0.5
Puzzley Run (Total 8.6),	1.9 in Pa.
Laurel Run,	1.0
• Laurel Hill Creek,	126.0
Clear Run,	5.3
Lohr Run,	6.5
Hoozer Run,	4.7
Jones Run,	7.1
Fishing Run,	3.6
Blue Hole Run,	6.7
Grays Run,	7.5
Cranberry Glade Run,	4.9
Lick Run,	1.7
Mill Run,	7.6
• Drake Run,	13.3
Sherman Run,	2.6
• Big Meadow Run,	35.9
Trout Hollow,	2.6
Smiley Run,	1.4
Beaver Run,	11.6
Cucumber Run,	6.3
Jonathan Run,	6.1
Blackberry Run,	1.2
Bear Run,	2.7
Laurel Run,	8.8
Haney Run,	3.0
Laurel Run,	5.4
• Indian Creek,	125.7
Camp Creek,	7.5
Roaring Run,	11.8
Pike Run,	5.4
Champion Run,	10.8
North Branch,	2.8
South Branch,	4.9
Poplar Run,	9.8
Buck Run,	12.9
North Fork,	7.9
Middle Fork,	3.8
Raster Run (or Reslar Run),	6.8
Laurel Run,	2.1

Ohio River (continued).

Monongahela River (continued).

Youghiogheny River (continued).

		Drainage Area Square Miles
•	Dunbar Creek,	38.0
	Glade Run,	10.2
	Rock Run,	1.2
	Limestone Run,	3.0
	Tacker Run,	2.0
	Elk Rock Run,	1.2
	Gist Run,	6.2
	Laurel Run,	1.0
	Tacker Run,	2.3
	Reagan Run,	2.4
	Connell Run (or McCoy Run),	3.7
	Opossum Creek,	7.4
•	Mounts Creek,	32.7
	Spruce Run,	2.9
	Butler Run,	3.8
	Irish Run,	2.8
	Breakneck Run,	9.9
	Whites Run,	1.2
	Galley Run,	3.3
	Hickman Run,	2.6
	Dickerson Run,	5.9
	Furnace Run,	3.4
	Virgin Run,	4.6
	Washington Run,	7.6
	Stewarts Run,	0.3
	Browneller Run,	1.9
•	Jacobs Creek,	94.9
	McGinness Run,	6.3
	Brush Creek,	5.8
	Sulphur Run (or Shupers Run),	4.0
	Greenlick Run,	5.0
	Latta Run,	2.3
	Sherrick Run,	4.7
	Stauffer Run,	5.0
	Anderson Run,	1.2
	Meadow Run,	7.1
	Barren Run,	10.6
	Cedar Creek,	6.1
•	Sewickley Creek,	165.0
	Trauger Run,	11.1
	Brinker Run,	2.5
	Boyer Run,	5.0
	Hurst Run,	0.7
	Township Line Run,	6.4
•	Jacks Run,	29.0
	Slate Creek,	7.7
	Wilson Run,	7.5
	Belson Run,	2.5
	Buffalo Run,	10.1

Ohio River (continued).
Monongahela River (continued).
Youghiogheny River (continued).
Sewickley Creek (continued).

	Drainage Area Square Miles
Pinkerton Run,	1.7
Painters Run,	3.0
* Little Sewickley Creek,	31.5
Pollock Run,	8.2
Possum Hollow,	2.4
Crawford Run,	1.8
Long Run,	13.3
Jacks Run,	4.4
Crooked Run,	3.6
Bull Run,	5.3
Thompson Run,	2.7
* Turtle Creek,	146.6
Steels Run,	4.9
Haymakers Run,	11.2
Thompson Run (or Abers Creek),	11.0
Lyons Run,	8.9
Byers Run,	3.9
* Brush Creek,	56.9
Brush Run,	13.5
Coal Run,	1.8
Tinker Run,	4.6
Dirtycamp Run,	3.2
Thompson Run,	17.6
Northeast Branch,	2.5
Lake Run,	1.8
Chalfont Run,	4.3
Duffs Run,	0.8
Fall Hollow Run,	2.7
Whitaker Run,	2.3
Ninemile Run,	7.4
Streets Run,	10.3
Beck Run,	2.7

TABLE No. 23—*Main Ohio Sub-basin*

*Ohio River,	15,571.0 in Pa
Sawmill Run,	19.0
* Chartiers Creek,	278.1
Reservoir No. 4 Run (or Point Lookout Branch),	2.3
Reservoir No. 3 Run,	1.5
Georges Run,	7.8
Chartiers Run,	22.4
Westland Run,	5.6
Plum Run,	4.0
Chartiers Branch,	6.1
* Little Chartiers Creek,	47.5
Opossum Run,	1.3

Ohio River (continued).

Chartiers Creek (continued).

Little Chartiers Creek (continued).	Drainage Area Square Miles
Vances Run,	12.0
Speers Run,	1.8
Cascade Run,	3.0
McPherson Creek,	2.8
Brush Run,	10.3
Coal Run,	3.8
* Millers Run,	28.6
Fishing Run,	1.9
Dolphin Run,	2.1
Thom Run,	3.3
McLaughlin Run,	7.2
Painters Run,	4.3
Scrubgrass Run,	1.3
* Robinson Run,	40.1
Robbs Run,	1.2
North Fork,	13.0
Half Crown Run,	2.3
Pinkertons Creek,	2.6
Scott Run,	1.1
Campbells Creek,	5.5
Jack Run,	2.3
Spruce Run,	2.3
Lowrie Run,	16.7
Bear Run,	5.3
Toms Run,	2.2
Killbuck Run,	5.3
Moon Run,	5.4
* Montour Run,	36.4
South Fork,	2.6
North Fork,	2.4
Trout Run,	1.0
Meeks Run,	2.3
McCabe Run,	1.0
Haysville Run,	0.8
Thorn Run,	1.9
Narrows Run,	2.3
Little Sewickley Creek,	10.3
Flaugherty Run,	8.9
Shouse Run,	1.0
* Sewickley Creek,	30.8
Rippling Run,	6.1
Logtown Run,	5.7
Tevebau Run,	2.6
Crows Run,	13.7
Pine Run,	1.8
Snake Run,	3.2
Elkhorn Run,	8.6
Moon Run,	3.4
Dutchman Run,	3.0

	Ohio River (continued).	*Drainage Area Square Miles*
*	Beaver River (Total 3,040.0),	1,784.3 in Pa.
*	Mahoning River (Total 1,099.4),	54.6 in Pa.
	Coffee Run (Total 10.5),	8.1 in Pa.
	Hickory Run (Total 24.1),	20.0 in Pa.
*	Shenango River (Total 1,080.0),	793.0 in Pa.
	Linesville Creek,	11.6
	Bennett Run,	11.0
	Padan Creek,	27.6
	Gravel Run (Total 10.3),	0.01 in Pa.
	Black Creek (Total 6.8),	0.05 in Pa.
	McMichael Creek (Total 8.0),	0.5 in Pa.
	McGrannahan Run,	3.9
	Sugar Run (Total 9.5),	9.0 in Pa.
	Lick Run,	1.0
*	Little Shenango River,	105.1
	Pine Run,	4.1
	Calvan Clark Run,	4.0
	Morrison Run,	5.1
	Bierman Run,	0.7
*	Crooked Creek,	43.4
	Randolph Run,	7.7
	Jackson Run,	2.4
	Unger Run,	2.3
	Minnis Run,	2.0
	Bluff Run,	5.9
*	Big Run,	33.8
	Lackawannock Creek,	8.9
	Daley Run (or Zahnister Run),	3.1
	Reznor Run,	1.0
*	Pymatuning Creek (Total 176.4),	25.2 in Pa.
	Booth Run (Total 11.1),	10.2 in Pa.
	Gillis Run,	3.5
	Chestnut Run,	3.9
	Pine Run,	2.9
	Little Yankee Creek (Total 43.0),	2.1 in Pa.
	Little Deer Creek (Total 7.8),	2.0 in Pa.
	Hann Run,	2.9
	Hogback Run,	8.7
	Watson Run,	1.1
	Deer Creek,	13.0
*	Neshannock Creek,	244.5
*	Otter Creek,	48.7
	Skunk Run,	1.8
	Kents Run,	1.8
	Oilmill Run,	4.1
*	Cool Spring Creek,	52.1
	Yellow Creek,	4.2
	Mill Creek,	14.8
	Beaver Run,	3.7
	Pine Run (or Black Run)	6.9

Ohio River (continued).

Beaver River (continued).

Shenango River (continued).

Neshannock Creek (continued).

		Drainage Area Square Miles
	Mill Run,	4.5
	Indian Run,	6.8
	Potter Run,	6.0
*	Little Neshannock Creek,	51.2
	Robinson Run,	0.9
	West Branch,	18.2
	Hottenbaugh Run,	13.9
*	Big Run,	33.9
	McKee Run,	6.1
	Edwards Run,	3.8
	Jenkins Run,	5.9
	Eckles Run,	3.2
	Snake Run,	3.2
	Wampum Run,	2.5
*	Connoquenessing Creek,	832.7
	Pine Run,	3.6
	Stony Run,	8.8
	Thorn Creek (or Thorn Run),	7.4
*	Bonnie Brook,	20.1
	Coal Run,	6.7
	Sullivan Run,	1.0
	Butcher Run,	4.0
	Sawmill Run,	3.0
	Rocklick Run,	1.3
*	Thorn Creek,	42.3
	Patterson Run,	2.7
	Robinson Run,	2.5
*	Glade Run,	41.4
*	Breakneck Creek,	41.9
	Kaufman Run (or Little Breakneck Creek),	7.0
	Wolfe Run,	5.6
	Likens Run,	3.7
*	Little Connoquenessing Creek,	63.6
	Crooked Run,	2.9
	Mulligan Run,	6.5
	Semiconon Run,	5.2
	Crab Run,	9.8
*	Yellow Creek,	16.6
	Little Yellow Creek,	5.1
	Scholars Run,	6.9
	Glade Run,	4.7
	Muntz Run,	1.9
	Doe Run,	3.3
	Buck Run,	0.5
	Pine Run,	1.5
*	Camp Run,	14.8
*	Brush Creek,	55.8
*	Slippery Rock Creek,	403.8
	Seaton Creek,	13.8
	Blacks Creek,	6.6

Ohio River (continued).
 Beaver River (continued).
  Connoquenessing Creek (continued).
   Slippery Rock Creek (continued).

		Drainage Area Square Miles
	North Branch,	16.3
	McMurray Run,	13.1
•	South Branch,	39.4
	Christy Run,	2.9
	Findlay Run,	5.9
	McDonald Run,	4.0
	Long Run,	3.8
	Glade Run,	7.8
	Big Run,	7.2
	Hogue Run,	7.5
•	Wolf Creek,	100.3
	East Branch,	14.2
	Gill Run,	2.6
	Black Run,	10.6
	Barmore Run,	5.1
	Black Run,	10.1
	Swamp Run,	11.2
	Black Run,	7.4
	Jamison Run,	12.2
	Taylor Run,	13.4
•	Muddy Creek,	58.5
	Big Run,	2.4
	Swamp Run,	6.7
	Shannon Run,	3.9
	Big Run,	7.2
	Bear Run,	3.6
	Cheeseman Run,	2.3
	Duck Run,	5.9
	Stockman Run,	2.2
	Clarks Run,	3.9
	Thompson Run,	1.5
	Wallace Run,	4.7
	Bennett Run,	3.0
	Blockhouse Run,	7.0
•	Brady Run,	25.8
	North Branch,	6.5
	South Branch,	14.8
	McElroy Run,	1.5
	Rag Run,	0.8
	Twomile Run,	6.9
	Poorhouse Run,	1.8
•	Raccoon Creek,	183.9
	Cherry Run,	3.0
	Burgetts Fork,	18.1
	Fulton Run,	2.8
	Little Raccoon Creek,	15.8
	St. Patrick Run,	5.1
	Chamberlain Run,	0.6

Ohio River (continued). Raccoon Creek (continued).	*Drainage Area* *Square Miles*
Brush Run,	6.3
Dilloe Run,	2.2
Bigger Run,	1.8
Wingfield Run,	2.9
Potato Garden Run,	10.3
Big Traverse Run,	20.0
Little Service Run,	5.0
Little Traverse Run,	7.2
Raredon Run,	9.6
Service Creek,	18.2
Frames Run,	1.0
Trampmill Run,	3.6
Gums Run,	1.5
Fishpot Run,	2.1
Fourmile Run,	2.2
Squirrel Run,	0.6
Sixmile Run,	8.9
Wolf Run,	5.0
Haden Run,	2.2
Peggs Run,	4.0
Smiths Run,	0.6
Upper Dry Run,	6.3
McLaughlin Run,	1.3
• Little Beaver River (Total 494.6),	102.0 in Pa.
• North Fork (Total 111.0),	92.4 in Pa.
Honey Creek (Total 24.4),	13.8 in Pa.
Beaverdam Run,	6.5
Madden Run,	2.5
Jordan Run,	3.5
McCautry Run,	2.3
Dilworth Run,	4.3
Painters Run,	3.8
Coalbank Run,	1.9
Brush Run,	14.7
Pine Run,	1.9
Beiler Run,	6.7
Island Run,	2.2
Mill Creek (Total 15.2),	14.1 in Pa.
Little Mill Creek (Total 3.3),	2.2 in Pa.
Tomlinson Run,	4.2 in Pa.
North Fork,	0.5 in Pa.
South Fork,	3.7 in Pa.
• Kings Creek,	30.7 in Pa.
Aunt Clara Fork,	13.0 in Pa.
North Fork,	7.3 in Pa.
Lawrence Run,	2.5
Harmon Creek,	20.4 in Pa.
Ward Run,	2.9
Martin Hollow,	1.9

	Ohio River (continued).	Drainage Area Square Miles
*	Cross Creek,	63.3 in Pa.
	South Fork,	12.4
	North Fork,	16.4
	Middle Fork,	4.6
	Scott Run,	9.6
	Parmar Run,	2.5
*	Buffalo Creek,	111.7 in Pa.
	Sawhill Run,	2.9
	Pleasant Valley Run,	2.9
	Brush Run,	21.6
	Dunkle Run,	7.6
	Haynon Run,	4.3
	Buck Run,	5.7
	Narigan Run,	1.8
	Dutch Fork,	23.6
	Ralston Run,	1.5
	Dog Run,	1.5
	Welch Hollow,	0.8
	Sugarcamp Run,	9.8
	Indian Camp Run,	3.0
	Bashears Run,	1.2
	Wells Run,	3.0
	Castleman Run,	3.8
	Crupe Run,	0.6
	Rices Run,	0.1 in Pa.
	North Prong,	1.4
	Wheeling Creek,	160.3 in Pa.
	Enslow Fork,	60.3 in Pa.
	Templeton Fork,	20.8
	Rocky Run,	7.0
	Owens Run,	3.9
	Robinson Run,	22.1
	Blockhouse Run,	1.5
	Beham Run,	3.1
	Wrights Run,	1.5 in Pa.
*	Dunkard Fork,	72.4 in Pa.
*	North Fork,	28.2
	Job Creek,	9.2
	Whitethorn Run,	2.0
	Long Run,	3.7
	Wright Run,	1.4
	Kent Run,	2.6
*	South Fork,	26.4 in Pa.
	Blacks Creek,	3.2
	Mudlick Fork,	7.3
	Chambers Run,	0.9
	Hewitt Run,	2.3
	Hart Run,	0.7
	Crabapple Creek,	7.8
	Wharton Run,	1.7

Ohio River (continued). Wheeling Creek (continued).	*Drainage Area* *Square Miles*
Turkey Run,	0.4 in Pa.
Middle Wheeling Creek,	14.3 in Pa.
Ladley Run,	2.5 in Pa.
Gillespie Run,	0.2 in Pa.
Little Wheeling Creek,	0.6 in Pa.
Grave Creek,	0.5 in Pa.
Fish Creek,	38.5 in Pa.
Pennsylvania Fork,	36.6 in Pa.
Hamilton Run,	2.0
Herod Run,	2.8
Laurel Run,	2.0
Bisset Run,	3.4
Buzzard Run,	0.7
Wagonroad Run,	3.7
Pigeon Run,	1.0
Knob Run,	2.5 in Pa.
Harts Run,	6.7 in Pa.
West Virginia Fork,	1.9 in Pa.
Rockcamp Run,	1.1 in Pa.
Browns Run,	0.8 in Pa.

GAZETTEER

(For text explanatory of the following tabular matter see page 19)

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
ABERS CREEK (or THOMPSON RUN),	Allegheny,	Turtle Creek,	Monongahela,	11.0	
ABRAHAM CREEK,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	19.0	
ABRAM RUN,	Montgomery,	Schuylkill River,	Lower Delaware,	4.9	
ACKER RUN,	Perry,	Board Run,	Lower Juniata,	2.1	
•ACKLEY RUN,	Warren,	Conewango Creek,	Upper Allegheny,	25.8	211
ADAM RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	1.6	
ADAMS CREEK,	Pike,	Delaware River,	Upper Delaware,	7.5	
ADAMS RUN,	Bedford,	Dunning Creek,	Upper Juniata,	14.1	
ADAMS RUN,	Blair,	Blairs Run,	Upper Juniata,	2.7	
ADAMS RUN,	Schuylkill,	Swatara Creek,	Lower Main Susquehanna,	1.2	
AIMY RUN,	Center,	Big Fill Run,	Upper Juniata,	4.4	
ALBERT RUN,	Clearfield,	Little Laurel Run,	Upper West Branch Susquehanna,	1.2	
ALDER BROOK,	Erie,	West Branch French Creek,	Upper Allegheny,	6.4	
ALDER RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	22.0	
ALDER RUN,	Erie,	French Creek,	Upper Allegheny,	6.3	
ALDERSON RUN,	Carbon,	Quakake Creek,	Middle Delaware,	2.8	
ALEXANDER RUN,	Clearfield,	Japling Run,	Upper West Branch Susquehanna,	0.9	
ALLEGHENY CREEK,	Berks,	Schuylkill River,	Lower Delaware,	17.9	
ALLEGHENY CREEK,	Northampton,	Delaware River,	Upper Delaware,	8.7	
•ALLEGHENY RIVER,	Allegheny,	Ohio River,	Ohio,	11,705.0	211
•ALLEGHENY PORTAGE CREEK,	McKean,	Allegheny River,	Upper Allegheny,	47.4	214
ALLEN RUN,	Fayette,	Redstone Creek,	Monongahela,	4.3	
ALLEN RUN,	Indiana,	Twolick Creek,	Lower Allegheny,	2.0	
ALLENDER RUN,	Venango,	Pithole Creek,	Upper Allegheny,	2.7	
ALLEY RUN,	Bradford,	Sugar Creek,	Upper North Branch Susquehanna,	7.9	
ALLOWAY CREEK,	Adams,	Monocacy River,	Potomac,	24.2	
ALLYN CREEK,	Bradford,	Wappasening Creek,	Upper North Branch Susquehanna,	6.1	
ALUM RUN,	York,	South Branch Muddy Creek,	Lower Main Susquehanna,	3.7	
AMY RUN,	Cambria,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	4.0	
•ANALOMINK CREEK (or WEST BRANCH BRODHEADS CREEK).	Monroe,	Brodheads Creek,	Upper Delaware,	43.0	215
ANCHOR RUN,	Clarion,	Allegheny River,	Middle Allegheny,	2.4	
ANDERS RUN,	Warren,	Allegheny River,	Upper Allegheny,	2.6	
•ANDERSON CREEK,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	79.8	215
ANDERSON (LITTLE) CREEK,	Clearfield,	Anderson Creek,	Upper West Branch Susquehanna,	15.5	
ANDERSON (LITTLE) CREEK,	Clearfield,	Anderson Creek,	Upper West Branch Susquehanna,	8.9	
ANDERSON RUN,	Clarion,	Licking Creek,	Middle Allegheny,	3.0	
ANDERSON RUN,	Westmoreland,	Jacobs Creek,	Monongahela,	1.2	
ANDERSONS RUN,	Perry,	Sherman Creek,	Lower Main Susquehanna,	2.7	
ANDREWS RUN,	Warren,	Brokenstraw Creek,	Upper Allegheny,	12.9	
ANGELICA CREEK,	Berks,	Schuylkill River,	Lower Delaware,	7.3	
ANNIN CREEK,	McKean,	Allegheny River,	Upper Allegheny,	10.9	

ANTHONY RUN,	Indiana,	Crooked Creek,	Middle Allegheny	5.3	
ANTHONY RUN,	Indiana,	Curry Run,	Middle Allegheny,	3.3	
ANTIETAM CREEK (or STONY CREEK),	Berks,	Schuylkill River,	Lower Delaware,	17.6	
ANTIETAM CREEK,	State of Maryland,	Potomac River,	Potomac,	115.6 in Pa.	
ANTIETAM (LITTLE) CREEK,	Franklin,	Antietam Creek,	Potomac,	115.6 in Pa.	
•ANTIETAM (LITTLE) CREEK, EAST BRANCH	Franklin,	Little Antietam Creek,	Potomac,	51.8	216
•ANTIETAM (LITTLE) CREEK, WEST BRANCH,	Franklin,	Little Antietam Creek,	Potomac,	42.5	217
ANTIS CREEK,	Lycoming,	Nippenose Creek,	Lower West Branch Susquehanna,	10.6	
ANTIS RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	4.7	
ANTRAM RUN,	Fayette,	Monongahela River,	Monongahela,	1.3	
APOLACON CREEK,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	19.6 in Pa.	
•AQUASHICOLA CREEK,	Carbon,	Lehigh River,	Middle Delaware,	81.2	218
ARCH SPRING RUN,	Blair,	Little Juniata River,	Upper Juniata,	14.0	
ARIEL CREEK,	Wayne,	Wallenpaupack Creek,	Upper Delaware,	16.6	
ARKSILL RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	1.4	
ARMEL RUN,	Westmoreland,	Ninemile Run,	Lower Allegheny,	3.5	
ARMOND RUN,	Huntingdon,	Shaver Creek,	Upper Juniata,	6.4	
•ARMSTRONG CREEK,	Dauphin,	Susquehanna River,	Middle Main Susquehanna,	32.9	218
ARMSTRONG RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	0.6	
ARNOLD CREEK,	Luzerne,	Huntington Creek,	Lower North Branch Susquehanna,	4.6	
ARNOLD RUN,	Clearfield,	Mosquito Creek,	Upper West Branch Susquehanna,	13.6	
ARNOT RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	12.2	
ARNOT (LITTLE) RUN,	Warren,	Arnot Run,	Upper Allegheny,	3.5	
ARROWMINK CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	1.1	
ASAPH RUN,	Tioga,	Marsh Creek,	Middle West Branch Susquehanna,	15.7	
ASAPH (LITTLE) RUN,	Tioga,	Asaph Run,	Middle West Branch Susquehanna,	1.5	
ASCENSION BROOK (or ST. JOHNS CREEK.)	Luzerne,	Lackawanna River,	Lower North Branch Susquehanna,	8.1	
ASHCRAF RUN,	Clearfield,	Chest Creek,	Upper West Branch Susquehanna,	3.4	
ASHTABULA CREEK,	Erie,	Ashtabula River,	Erie,	8.5 in Pa.	
ASHTABULA RIVER,	State of Ohio,	Lake Erie,	Erie,	8.5 in Pa.	
ASKON HOLLOW,	Fayette,	George Creek,	Monongahela,	1.7	
ASYLUM RUN,	Dauphin,	Paxton Creek,	Lower Main Susquehanna,	3.7	
•AUGHWICK CREEK,	Huntingdon	Juniata River,	Lower Juniata,	327.0	219
•AUGHWICK (LITTLE) CREEK,	Huntingdon,	Aughwick Creek,	Lower Juniata,	54.5	220
•AULTMANS RUN,	Indiana,	Conemaugh River,	Lower Allegheny,	31.2	220
AUNT CLARA FORK	Washington,	Kings Creek,	Main Ohio,	13.0 in Pa.	
AYER HILL BRANCH	Potter	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	6.4	
AYLESWORTH CREEK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	5.2	
AYLESWORTH RUN (or GALLAGHER RUN.)	Elk,	Elk Creek,	Middle Allegheny,	1.5	
•BABB CREEK,	Tioga,	Pine Creek,	Middle West Branch Susquehanna,	149.5	221
BABCOCK BROOK,	Bradford,	Prince Hollow Run,	Upper North Branch Susquehanna,	3.9	
BABCOCK CREEK,	Somerset,	Paint Creek,	Lower Allegheny,	4.4	
BACHMAN RUN,	Lancaster,	Little Conestoga Creek,	Lower Main Susquehanna,	6.2	
•BACK CREEK,	Franklin,	Conococheague Creek,	Potomac,	84.5	221
BACK RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	6.8	
BACK RUN,	Fulton,	Cove Creek,	Potomac,	3.5	
BACK RUN,	Lancaster,	Little Chickies Creek,	Lower Main Susquehanna,	5.4	
BACKER RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	21.6	
BACKER MILL RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	13.2	
BACON RUN,	Greene,	Dunkard Creek,	Monongahela,	1.1	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
BAGDAD RUN,	Erie,	Black Run,	Upper Allegheny,	0.9	
BAILEY BROOK,	Erie,	West Branch French Creek,	Upper Allegheny,	4.2	
BAILEY CREEK,	Tioga,	Mill Creek,	Upper North Branch Susquehanna,	7.7	
BAILEY RUN,	Allegheny,	Wilson Run,	Lower Allegheny,	2.0	
BAILEY RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	1.1	
BAILEY RUN,	Perry,	Juniata River,	Lower Juniata,	2.0	
BAILEY RUN,	Schuylkill,	Good Spring Creek,	Lower Main Susquehanna,	0.6	
BAIRD RUN,	Schuylkill,	Shenandoah Creek,	Middle Main Susquehanna,	0.4	
BAIRDS RUN,	Schuylkill,	West Branch Fishing Creek,	Lower Main Susquehanna,	1.5	
BAIRMAN HOLLOW,	Wyoming,	Mehoopany Creek,	Upper North Branch Susquehanna,	3.1	
•BALD EAGLE CREEK,	Blair,	Little Juniata River,	Upper Juniata,	48.2	222
•BALD EAGLE CREEK,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	781.8	223
BALD EAGLE CREEK,	York,	Muddy Creek,	Lower Main Susquehanna,	9.9	
BALD HILL RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	3.3	
BALD HILL RUN,	Forest,	Blue Jay Creek,	Upper Allegheny,	1.9	
BALDWIN CREEK,	Tioga,	Cowanesque River,	Upper North Branch Susquehanna,	4.8	
BALDWIN RUN,	Tioga,	Marsh Creek,	Middle West Branch Susquehanna,	5.4	
BALDWIN RUN (or LAUREL RUN),	Westmoreland,	Conemaugh River,	Lower Allegheny,	9.6	
BALL RUN,	Lancaster,	East Branch Octoraro Creek,	Lower Main Susquehanna,	3.5	
BALLARD CREEK (or GREELEY CREEK.)	Pike,	Shohola Creek,	Upper Delaware,	15.0	
BALLS CREEK,	Wayne,	West Branch Delaware River,	Upper Delaware,	15.8	
BANE CREEK,	Washington,	Tenmile Creek,	Monongahela,	17.6	
BANIAN RUN,	Clearfield,	Muddy Run,	Upper West Branch Susquehanna,	2.1	
BANK RUN,	Forest,	Spring Creek,	Middle Allegheny,	2.0	
BANKES RUN,	Schuylkill,	Pine Creek,	Lower Delaware,	0.4	
BARDEN BROOK,	McKean,	Allegheny River,	Upper Allegheny,	6.3	
BAREFOOT RUN,	Bedford,	Dunning Creek,	Upper Juniata,	10.4	
BARGER RUN,	Perry,	Wildcat Creek,	Middle Main Susquehanna,	4.2	
BARK CABIN RUN,	Lycoming,	Otter Run,	Middle West Branch Susquehanna,	6.4	
BARMORE RUN,	Mercer,	Wolf Creek,	Main Ohio,	5.1	
BARNES RUN,	Luzerne,	Stony Creek,	Lower North Branch Susquehanna,	1.2	
BARNETT RUN,	Fulton,	Little Tonoloway Creek,	Potomac,	7.8	
BARREN RUN,	Westmoreland,	Jacobs Creek,	Monongahela,	10.6	
BARRETT RUN,	Clearfield,	Wilson Run,	Upper West Branch Susquehanna,	2.7	
BARRETT RUN,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	0.6	
BARRS RUN,	Washington,	Tenmile Creek,	Monongahela,	2.5	
BARSHINGER CREEK,	York,	East Branch Codorus Creek,	Lower Main Susquehanna,	5.4	
BARTHOLEMEW CREEK,	Wyoming,	Tunkhannock Creek,	Upper North Branch Susquehanna,	7.5	
BASHEARS RUN,	Washington,	Sugarcamp Run,	Main Ohio,	1.2	
BASIN RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	5.3	
BASKIN RUN,	Erie,	South Branch French Creek,	Upper Allegheny,	10.8	
BATES FORK,	Greene,	Browns Creek,	Monongahela,	13.8	
BATES RUN,	Fayette,	Monongahela River,	Monongahela,	1.3	
BAYERS RUN,	Lancaster,	Big Chickies Creek,	Lower Main Susquehanna,	6.6	
BEACH RUN,	Lebanon,	Elizabeth Run,	Lower Main Susquehanna,	4.8	

BEAM RUN,	Allegheny,	Peters Creek,	Monongahela,	1.9		
BEAN RUN,	Luzerne,	Bowman Creek,	Upper North Branch Susquehanna,	1.7		
BEAR BRANCH,	York,	North Branch Muddy Creek,	Lower Main Susquehanna,	1.5		
BEAR BROOK,	Pike,	Adams Creek,	Upper Delaware,	0.8		
*BEAR CREEK,	Armstrong,	Allegheny River,	Middle Allegheny,	63.4		224
BEAR CREEK,	Berks,	Stony Creek,	Lower Delaware,	0.6		
BEAR CREEK,	Carbon,	Nesquehoning Creek,	Middle Delaware,	1.8		
BEAR CREEK,	Dauphin,	Wiconisco Creek,	Middle Main Susquehanna,	4.8		
*BEAR CREEK,	Elk,	Clarion River,	Middle Allegheny,	41.6		224
BEAR CREEK,	Elk,	Silver Creek,	Middle Allegheny,	1.2		
BEAR CREEK,	Forest,	Tionesta Creek,	Upper Allegheny,	4.3		
BEAR CREEK,	Fulton,	Sideling Hill Creek,	Potomac,	6.1	in Pa	
*BEAR CREEK,	Luzerne,	Lehigh River,	Middle Delaware,	65.8		225
BEAR CREEK,	Schuylkill,	Schuylkill River,	Lower Delaware,	16.6		
BEAR CREEK,	Tioga,	Mill Creek,	Upper North Branch Susquehanna,	3.0		
BEAR CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	3.6		
BEAR CREEK, NORTH BRANCH,	Butler,	Bear Creek,	Middle Allegheny,	16.7		
BEAR CREEK, SOUTH BRANCH,	Butler,	Bear Creek,	Middle Allegheny,	14.6		
BEAR (LITTLE) CREEK,	Carbon,	Lehigh River,	Middle Delaware,	9.4		
BEAR (LITTLE) CREEK,	Elk,	Bear Creek,	Middle Allegheny,	3.2		
BEAR (LITTLE) CREEK,	Lycoming,	Loyalsock Creek,	Lower West Branch Susquehanna,	12.8		
BEAR HOLLOW,	Cambria,	South Fork Little Conemaugh River,	Lower Allegheny,	0.5		
BEAR RUN,	Allegheny,	Lowrie Run,	Main Ohio,	5.3		
BEAR RUN,	Butler,	Muddy Creek,	Main Ohio,	3.6		
BEAR RUN,	Center,	Little Fishing Creek,	Middle West Branch Susquehanna,	16.1		
BEAR RUN,	Center,	Moshannon Creek,	Upper West Branch Susquehanna,	3.0		
BEAR RUN,	Clearfield,	Anderson Creek,	Upper West Branch Susquehanna,	3.0		
BEAR RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	19.5		
BEAR RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	1.9		
BEAR RUN,	Elk,	Little Toby Creek,	Middle Allegheny,	9.3		
BEAR RUN,	Erie,	Hare Creek,	Upper Allegheny,	2.6		
BEAR RUN,	Erie,	Walnut Creek,	Erie,	3.4		
BEAR RUN,	Fayette,	Youghiogheny River,	Monongahela,	2.7		
BEAR RUN,	Forest,	Hulings Run,	Middle Allegheny,	2.3		
BEAR RUN,	Lycoming,	Little Pine Creek,	Middle West Branch Susquehanna,	5.4		
BEAR RUN,	McKean,	East Branch Tunungwant Creek	Upper Allegheny,	1.6		
BEAR RUN,	Schuylkill,	Mahanoy Creek,	Middle Main Susquehanna,	0.3		
BEAR RUN,	Tioga,	Pine Creek,	Middle West Branch Susquehanna,	1.5		
BEAR RUN, SOUTH BRANCH,	Clearfield,	Bear Run,	Upper West Branch Susquehanna,	9.9		
BEAR (BIG) RUN,	Lycoming,	Loyalsock Creek,	Lower West Branch Susquehanna,	15.2		
BEAR CAMP BRANCH,	Bedford,	Fifteenmile Creek,	Potomac,	3.9	in Pa	
BEAR GAP RUN,	Center,	Pine Creek,	Middle Main Susquehanna,	0.8		
BEAR HOLLOW CREEK,	Luzerne,	Harvey Creek,	Lower North Branch Susquehanna	2.8		
BEAR ROCK RUN,	Cambria,	Little Conemaugh River,	Lower Allegheny,	6.8		
BEATTY RUN,	Venango,	Sugar Creek,	Upper Allegheny,	12.3		
BEAUTY RUN,	Center,	Beech Creek,	Middle West Branch Susquehanna,	13.8		
BEAUTY RUN,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	6.7		
BEAVER BROOK,	Huntingdon,	Spruce Creek,	Upper Juniata,	24.2		
BEAVER CREEK,	Adams and York,	Conewago Creek,	Lower Main Susquehanna,	17.8		
BEAVER CREEK,	Bedford,	Yellow Creek,	Upper Juniata,	19.0		
BEAVER CREEK,	Bucks,	Tinicum Creek,	Middle Delaware,	7.3		
BEAVER CREEK,	Carbon,	Black Creek,	Middle Delaware,	8.6		
BEAVER CREEK,	Chester,	Brandywine Creek,	Lower Delaware,	4.3		
BEAVER CREEK,	Chester,	East Branch Brandywine Creek,	Lower Delaware,	17.6		
BEAVER CREEK,	Clarion,	Clarion River,	Middle Allegheny,	17.6		

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
•BEAVER CREEK,	Dauphin,	Swatara Creek,	Lower Main Susquehanna,	26.6	225
BEAVER CREEK,	Forest,	East Hickory Creek,	Upper Allegheny,	12.8	
BEAVER CREEK,	Schuylkill,	Little Schuylkill River,	Lower Delaware,	10.6	
BEAVER CREEK,	Snyder,	Middle Creek,	Middle Main Susquehanna,	11.6	
BEAVER CREEK,	York,	Conewago Creek,	Lower Main Susquehanna,	23.1	
BEAVER CREEK, NORTH BRANCH	York,	Beaver Creek,	Lower Main Susquehanna,	3.7	
BEAVER CREEK, SOUTHEAST BRANCH,	York,	Beaver Creek,	Lower Main Susquehanna,	2.2	
BEAVER (BIG) CREEK,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	21.4	
BEAVER (BIG) CREEK, SOUTH FORK,.	Lancaster,	Big Beaver Creek,	Lower Main Susquehanna,	6.8	
BEAVER (LITTLE) CREEK,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	13.1	
•BEAVER RIVER,	Beaver,	Ohio River,	Main Ohio,	3,040.0	226
•BEAVER (LITTLE) RIVER,	Beaver,	Ohio River,	Main Ohio,	494.6	227
•BEAVER (LITTLE) RIVER, NORTH FORK.	Beaver,	Little Beaver River,	Main Ohio,	111.0	227
BEAVER RUN,	Berks,	Hay Creek,	Lower Delaware,	3.9	
BEAVER RUN (or BIEBER RUN),	Berks,	Pine Creek,	Lower Delaware,	8.5	
BEAVER RUN,	Bucks,	Tohickon Creek,	Middle Delaware,	9.7	
BEAVER RUN (or BEAVERDAM RUN),	Cambria,	South Fork Little Conemaugh River,	Lower Allegheny,	8.2	
BEAVER RUN,	Chester,	French Creek,	Lower Delaware,	5.0	
BEAVER RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	19.0	
BEAVER RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	14.9	
BEAVER RUN,	Columbia,	Catawissa Creek,	Lower North Branch Susquehanna,	8.6	
BEAVER RUN,	Elk,	West Branch Kersey Run,	Upper West Branch Susquehanna,	1.2	
BEAVER RUN,	Erie,	South Branch French Creek,	Upper Allegheny,	5.2	
BEAVER RUN,	Fayette,	Big Meadow Run,	Monongahela,	11.6	
BEAVER RUN,	Jefferson,	Redbank Creek,	Middle Allegheny,	8.1	
BEAVER RUN,	Mercer,	Neshannock Creek,	Main Ohio,	3.7	
BEAVER RUN,	Montour,	Chillisquaque Creek,	Lower West Branch Susquehanna,	7.2	
BEAVER RUN (or BEAVERDAM RUN),..	Somerset,	Laurel Run,	Lower Allegheny,	6.7	
BEAVER RUN,	Sullivan,	Birch Creek,	Lower West Branch Susquehanna,	1.6	
•BEAVER RUN,	Westmoreland,	Kiskiminitas River,	Lower Allegheny,	54.8	228
BEAVER RUN,	Wyoming,	Bowman Creek,	Upper North Branch Susquehanna,	10.8	
BEAVER RUN,	York,	Fishing Creek,	Lower Main Susquehanna,	6.5	
BEAVER (LITTLE) RUN,	Clearfield,	Beaver Run,	Upper West Branch Susquehanna,	3.3	
•BEAVERDAM BRANCH,	Blair,	Frankstown Branch,	Upper Juniata,	89.9	229
BEAVERDAM BRANCH,	Jefferson,	South Branch North Fork Redbank Creek.	Middle Allegheny,	2.1	
BEAVERDAM CREEK,	Adams,	Conewago Creek,	Lower Main Susquehanna,	7.3	
BEAVERDAM CREEK,	Blair,	Frankstown Branch,	Upper Juniata,	14.0	
BEAVERDAM CREEK,	Somerset,	Stony Creek,	Lower Allegheny,	18.7	
•BEAVERDAM RUN,	Cambria,	Clearfield Creek,	Upper West Branch Susquehanna,	49.0	230
BEAVERDAM RUN,	Cambria,	Clearfield Creek,	Upper West Branch Susquehanna,	10.2	
BEAVERDAM RUN (or BEAVER RUN),..	Cambria,	South Fork Little Conemaugh River,	Lower Allegheny,	8.2	
BEAVERDAM RUN,	Clinton,	Kettle Creek,	Middle West Branch Susquehanna,	8.0	
BEAVERDAM RUN,	Lawrence,	North Fork Little Beaver River,	Main Ohio,	6.5	
BEAVERDAM RUN,	Lycoming,	Little Muncy Creek,	Lower West Branch Susquehanna,	12.8	

BEAVERDAM RUN,	Mifflin,	Juniata River,	Lower Juniata,	13.6		
BEAVERDAM RUN (or BEAVER RUN),	Somerset,	Laurel Run,	Lower Allegheny,	6.7		
BEAVERDAM RUN,	Somerset,	North Branch Quemahoning Creek,	Lower Allegheny,	5.4		
BEAVER MEADOW BRANCH,	Bradford,	South Branch Towanda Creek,	Upper North Branch Susquehanna,	3.5		
BEAVER SPRING RUN,	Snyder,	Beaver Creek,	Middle Main Susquehanna,	2.3		
BECK RUN,	Allegheny,	Monongahela River,	Monongahela,	2.7		
BECK RUN,	Lebanon,	Quittapahilla Creek,	Lower Main Susquehanna,	7.7		
BECKER BROOK,	Wyoming,	Mehoopany Creek,	Upper North Branch Susquehanna,	2.4		
BECKET RUN,	Allegheny,	Monongahela River,	Monongahela,	3.4		
BECKWITH RUN,	McKean,	West Clarion Creek,	Middle Allegheny,	6.6		
•BEECH CREEK,	Center and Clinton.	Bald Eagle Creek,	Middle West Branch Susquehanna,	156.7		230
BEECH CREEK, NORTH FORK,	Center,	Beech Creek,	Middle West Branch Susquehanna,	22.5		
BEECH CREEK, SOUTH FORK,	Center,	Beech Creek,	Middle West Branch Susquehanna,	12.6		
BEECH FLATS,	Potter,	West Branch Pine Creek,	Middle West Branch Susquehanna,	1.4		
BEECH RUN,	Clearfield,	East Branch Mahoning Creek,	Middle Allegheny,	2.8		
BEECH RUN,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	1.4		
BEECH BOTTOM RUN,	Elk,	Clarion River,	Middle Allegheny,	4.5		
BEECH BOTTOM RUN,	Lycoming,	Little Muncy Creek,	Lower West Branch Susquehanna,	1.4		
BEECHWOODS (EAST) CREEK,	Tioga,	Mill Creek,	Upper North Branch Susquehanna,	1.5		
BEECHWOODS (WEST) CREEK,	Tioga,	Mill Creek,	Upper North Branch Susquehanna,	0.9		
BEETEM HOLLOW,	Cumberland,	Yellow Breeches Creek,	Lower Main Susquehanna,	5.7		
BEGGARS CREEK,	Perry,	Sherman Creek,	Lower Main Susquehanna,	4.6		
BEHAM RUN,	Washington,	Robinson Run,	Main Ohio,	3.1		
BEILER RUN,	Beaver,	Little Beaver River,	Main Ohio,	6.7		
BEISEL RUN,	Carbon,	Quakake Creek,	Middle Delaware,	5.0		
BELL RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	15.9		
BELL RUN,	McKean,	Oswayo Creek,	Upper Allegheny,	19.0		
BELLMAN RUN,	Tioga,	Johnson Creek,	Upper North Branch Susquehanna,	6.0		
BELLS RUN,	Lancaster,	East Branch Octoraro Creek,	Lower Main Susquehanna,	4.3		
BELLS GAP RUN,	Blair,	Little Juniata River,	Upper Juniata,	13.6		
BELLTOWN RUN,	Mifflin,	Jacks Creek,	Lower Juniata,	8.4		
BELMOUTH RUN,	Elk,	Little Toby Creek,	Middle Allegheny,	3.1		
BELSON RUN,	Westmoreland,	Sewickley Creek,	Monongahela,	2.5		
BEND GULLY,	Tioga,	Long Run,	Middle West Branch Susquehanna,	2.4		
BEND RUN,	Warren,	Allegheny River,	Upper Allegheny,	1.1		
BENNEHOF RUN,	Venango,	Oil Creek,	Upper Allegheny,	2.5		
•BENNETT BRANCH,	Cameron,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	356.6		231
BENNETT BROOK,	McKean,	West Branch Tunungwant Creek,	Upper Allegheny,	4.7		
BENNETT CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	8.2		
BENNETT RUN,	Beaver,	Beaver River,	Main Ohio,	3.0		
BENNETT RUN,	Crawford,	Shenango River,	Main Ohio,	11.0		
BENNETT RUN,	York,	Conewago Creek,	Lower Main Susquehanna,	14.4		
BENNINGTONS SPRING RUN,	Fayette,	Lick Run,	Monongahela,	2.1		
BENS CREEK,	Cambria,	Little Conemaugh River,	Lower Allegheny,	8.0		
•BENS CREEK,	Somerset,	Stony Creek,	Lower Allegheny,	57.6		232
BENS CREEK, NORTH FORK,	Somerset,	Bens Creek,	Lower Allegheny,	11.9		
BENS CREEK, SOUTH FORK,	Somerset,	Bens Creek,	Lower Allegheny,	23.3		
•BENTLEY CREEK,	Bradford,	Chemung River,	Upper North Branch Susquehanna,	54.4	in Pa.	232
BENTLEY RUN,	Erie,	South Branch French Creek,	Upper Allegheny,	5.4		
BERKEBILE RUN,	Cambria,	Solomon Run,	Lower Allegheny,	1.2		
BERKELBACH RUN,	Schuylkill,	Little Swatara Creek,	Lower Main Susquehanna,	1.0		
•BERMUDIAN CREEK,	York,	Conewago Creek,	Lower Main Susquehanna,	112.2		233
•BERMUDIAN CREEK, NORTH BRANCH,	York,	Bermudian Creek,	Lower Main Susquehanna,	31.1		234
BERNHART CREEK,	Berks,	Schuylkill River,	Lower Delaware,	6.7		

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
BERTSCH CREEK,	Northampton,	Lehigh River,	Middle Delaware,	8.5	
BEST RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	0.2	
BETH RUN,	Luzerne,	Bowman Creek,	Upper North Branch Susquehanna,	1.9	
BIEBER RUN (or BEAVER RUN),	Berks,	Pine Creek,	Lower Delaware,	8.5	
BIERMAN RUN,	Mercer,	Little Shenango River,	Main Ohio,	0.7	
BIESECKER RUN,	Franklin,	East Branch Little Antietam Creek,	Potomac,	3.9	
BIG BRANCH (See name of main stream).					
BIG BROOK,	Wayne,	Dyberry Creek,	Upper Delaware,	15.2	
*BIG CREEK (or POHOPOCO CREEK),	Carbon,	Lehigh River,	Middle Delaware,	105.5	511
BIG CREEK,	Schuylkill,	Schuylkill River,	Lower Delaware,	3.6	
BIG RUN,	Butler,	Muddy Creek,	Main Ohio,	7.2	
BIG RUN,	Butler,	Muddy Creek,	Main Ohio,	2.4	
BIG RUN,	Butler,	Slippery Rock Creek,	Main Ohio,	7.2	
BIG RUN,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	4.1	
BIG RUN,	Clearfield,	Little Clearfield Creek,	Upper West Branch Susquehanna,	3.2	
BIG RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	2.5	
BIG RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	2.0	
BIG RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	3.4	
*BIG RUN,	Clinton,	Beech Creek,	Middle West Branch Susquehanna,	29.1	234
BIG RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	20.3	
BIG RUN,	Dauphin,	Wiconisco Creek,	Middle Main Susquehanna,	1.0	
BIG RUN,	Elk,	Spring Creek,	Middle Allegheny,	10.4	
BIG RUN,	Fayette,	Monongahela River,	Monongahela,	1.4	
BIG RUN,	Indiana,	Blacklegs Creek,	Lower Allegheny,	8.8	
BIG RUN,	Jefferson,	Little Sandy Creek,	Middle Allegheny,	18.3	
BIG RUN,	Jefferson,	Mahoning Creek,	Middle Allegheny,	20.0	
BIG RUN,	Juniata,	Lost Creek,	Lower Juniata,	3.5	
*BIG RUN,	Lawrence,	Shenango River,	Main Ohio,	33.9	235
BIG RUN,	Lycoming,	Little Muncy Creek,	Lower West Branch Susquehanna,	5.6	
BIG RUN,	Lycoming,	Muncy Creek,	Lower West Branch Susquehanna,	5.1	
*BIG RUN,	Mercer,	Shenango River,	Main Ohio,	33.8	235
BIG RUN,	Schuylkill,	Mahanoy Creek,	Middle Main Susquehanna,	5.9	
BIG RUN,	Sullivan,	Lewis Creek,	Lower West Branch Susquehanna,	2.0	
BIG SPRING,	Lycoming,	Trout Run,	Middle West Branch Susquehanna,	0.9	
BIG (See also significant name).					
BIGGER RUN,	Washington,	Raccoon Creek,	Main Ohio,	1.8	
BIGLERS RUN,	Clearfield,	Little Anderson Creek,	Upper West Branch Susquehanna,	7.4	
BINKER VALLEY,	Armstrong,	Allegheny River,	Middle Allegheny,	3.6	
BIRCH CREEK,	Berks,	Little Northkill Creek,	Lower Delaware,	1.3	
BIRCH CREEK,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	14.6	
BIRCH RUN,	Adams,	Conococheague Creek,	Potomac,	8.5	
BIRCH RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	0.7	
BIRCH RUN,	Cambria,	Mud Run,	Lower Allegheny,	0.8	
BIRCH RUN,	Chester,	Buck Run,	Lower Delaware,	5.3	
BIRCH RUN,	Chester,	French Creek,	Lower Delaware,	6.3	
BIRCH RUN,	Chester,	West Branch Brandywine Creek,	Lower Delaware,	4.6	

BIRCH RUN,	Forest,	Spring Creek,	Middle Allegheny,	0.3	
BIRCH RUN,	Potter,	East Fork First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	7.5	
BIRCH ISLAND RUN,	Clinton,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	20.4	
BISSET RUN,	Greene,	Pennsylvania Fork Fish Creek,	Main Ohio,	3.4	
BIXIE RUN,	Somerset,	Casselman River,	Monongahela,	11.1	
•BLACK CREEK,	Carbon,	Lehigh River,	Middle Delaware,	62.6	236
BLACK CREEK,	Carbon,	Lehigh River,	Middle Delaware,	21.3	
BLACK CREEK,	Crawford,	Shenango River,	Main Ohio,	6.8	
BLACK CREEK,	Lancaster,	Muddy Creek,	Lower Main Susquehanna,	9.8	
•BLACK CREEK,	Luzerne,	Nescopeck Creek,	Lower North Branch Susquehanna,	62.2	237
BLACK CREEK,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	5.1	
BLACK CREEK,	Schuylkill,	Swatara Creek,	Lower Main Susquehanna,	7.4	
BLACK CREEK,	Sullivan,	Little Loyalsock Creek,	Lower West Branch Susquehanna,	12.4	
BLACK RIVER,	Northampton,	Saucon Creek,	Middle Delaware,	4.4	
BLACK RUN,	Butler,	Slippery Rock Creek,	Main Ohio,	7.4	
BLACK RUN,	Chester,	Octoraro Creek,	Lower Main Susquehanna,	4.3	
BLACK RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	4.9	
BLACK RUN,	Erie,	Leboeuf Creek,	Upper Allegheny,	6.9	
BLACK RUN,	Jefferson,	Gordon Run,	Middle Allegheny,	1.2	
BLACK RUN (or PINE RUN),	Mercer,	Neshannock Creek,	Main Ohio,	6.9	
BLACK RUN,	Mercer,	Sandy Creek,	Upper Allegheny,	4.7	
BLACK RUN,	Mercer,	Wolf Creek,	Main Ohio,	10.6	
BLACK RUN,	Mercer,	Wolf Creek,	Main Ohio,	10.1	
BLACK RUN,	Union,	Spruce Run,	Lower West Branch Susquehanna,	4.0	
BLACK RUN,	Union,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	6.6	
•BLACK BEAR RUN,	Center,	Moshannon Creek,	Upper West Branch Susquehanna,	6.3	238
BLACKBERRY RUN,	Fayette,	Jonathan Run,	Monongahela,	1.2	
BLACKBURN RUN,	Chester,	Octoraro Creek,	Lower Main Susquehanna,	2.4	
BLACK DOG HOLLOW,	Washington,	Tenmile Creek,	Monongahela,	2.2	
BLACK FOX RUN,	Clarion,	Allegheny River,	Middle Allegheny,	8.2	
BLACK HOLE CREEK,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	16.1	
BLACKHORSE CREEK,	Chester,	Marsh Creek,	Lower Delaware,	3.9	
BLACKHORSE RUN,	Chester,	East Branch Brandywine Creek,	Lower Delaware,	1.4	
BLACK LAKE RUN,	Philadelphia,	Poquessing Creek,	Lower Delaware,	0.7	
•BLACKLEGS CREEK,	Indiana,	Kiskiminitas River,	Lower Allegheny,	45.4	238
•BLACKLICK CREEK,	Indiana,	Conemaugh River,	Lower Allegheny,	412.0	239
•BLACKLICK CREEK, NORTH BRANCH (or VETERA BRANCH),	Cambria and Indiana,	Blacklick Creek,	Lower Allegheny,	69.7	240
•BLACKLICK CREEK, SOUTH BRANCH,	Cambria,	Blacklick Creek,	Lower Allegheny,	47.6	240
•BLACK LOG CREEK,	Huntingdon,	Aughwick Creek,	Lower Juniata,	75.8	241
BLACKS CREEK,	Butler,	Slippery Rock Creek,	Main Ohio,	6.6	
BLACKS CREEK,	Greene,	South Fork Dunkard Fork,	Main Ohio,	3.2	
BLACKS CREEK,	Lycoming,	Blockhouse Run,	Middle West Branch Susquehanna,	8.5	
BLACKS RUN,	Allegheny,	Allegheny River,	Lower Allegheny,	0.6	
BLACKS RUN,	Greene,	Dunkard Creek,	Monongahela,	0.8	
BLACKSMITH RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	0.5	
BLACKSMITH RUN,	McKean,	Marvin Creek,	Upper Allegheny,	10.0	
BLACKSMITHS RUN,	McKean,	Blacksmith Run,	Upper Allegheny,	1.1	
BLACK SPRING CREEK,	Lebanon,	Evening Branch,	Lower Main Susquehanna,	1.3	
BLACK SWAMP RUN,	Jefferson,	Gordon Run,	Middle Allegheny,	1.5	
BLAIRS RUN,	Blair,	Blairs Gap Run,	Upper Juniata,	6.7	
•BLAIRS GAP RUN,	Blair,	Beaverdam Branch Frankstown Branch,	Upper Juniata,	27.6	242
BLOCKHOUSE RUN,	Beaver,	Beaver River,	Main Ohio,	7.0	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
BLOCKHOUSE RUN,	Greene,	Toms Run,	Monongahela,	8.3	
•BLOCKHOUSE RUN,	Lycoming,	Little Pine Creek,	Middle West Branch Susquehanna,	40.7	243
BLOCKHOUSE RUN,	Washington,	Robinson Run,	Main Ohio,	1.5	
BLOCKS RUN,	Huntingdon,	Spring Creek,	Lower Juniata,	3.0	
BLOOD RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	1.3	
BLOODY RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	1.1	
BLOODY RUN,	Greene,	Garrison Fork,	Monongahela,	2.2	
BLOOM RUN,	Clearfield,	Anderson Creek,	Upper West Branch Susquehanna,	0.9	
BLOOMFIELD RUN,	Crawford,	Negas Run,	Upper Allegheny,	3.2	
•BLOOMING GROVE CREEK,	Pike,	Lackawaxen River,	Upper Delaware,	25.3	243
BLUE RUN,	Tioga,	Long Run,	Middle West Branch Susquehanna,	2.4	
BLUE EYE RUN,	Warren,	Brokenstraw Creek,	Upper Allegheny,	12.6	
BLUE HOLE RUN,	Somerset,	Laurel Hill Creek,	Monongahela,	6.7	
BLUE JAY CREEK,	Forest,	Tionesta Creek,	Upper Allegheny,	19.9	
BLUE JAY CREEK, WEST BRANCH,	Forest,	Blue Jay Creek,	Upper Allegheny,	8.2	
BLUE KNOB RUN,	Blair,	Poplar Run,	Upper Juniata,	4.5	
BLUELICK CREEK,	Somerset,	Casselman River,	Monongahela,	15.5	
BLUE SPRING CREEK,	Franklin,	Licking Creek,	Potomac,	5.8	
BLUFF RUN,	Mercer,	Crooked Creek,	Main Ohio,	5.9	
BLYSON RUN,	Clarion,	Clarion River,	Middle Allegheny,	4.4	
BOARD RUN,	Perry,	Juniata River,	Lower Juniata,	4.4	
BOATYARD RUN,	Westmoreland,	Conemaugh River,	Lower Allegheny,	5.0	
BOBBS CREEK,	Forest,	Tionesta Creek,	Upper Allegheny,	9.0	
•BOBS CREEK,	Bedford,	Dunning Creek,	Upper Juniata,	66.5	244
BOGG CREEK (or McLAUGHLIN CREEK),	Crawford,	Thompson Run,	Upper Allegheny,	10.3	
BOGGS RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	3.7	
BOGGY RUN,	Elk,	Little Toby Creek,	Middle Allegheny,	3.5	
BOGUS CREEK,	Forest,	South Branch Tionesta Creek,	Upper Allegheny,	4.1	
BOILE RUN,	Northumberland,	Susquehanna River,	Middle Main Susquehanna,	6.0	
BOILING SPRING RUN,	Blair,	Frankstown Branch,	Upper Juniata,	6.0	
BOILING SPRINGS RUN,	Clarion,	Little Toby Creek,	Middle Allegheny,	4.1	
BOLDEN RUN,	Fayette,	Redstone Creek,	Monongahela,	4.9	
BOLIGH RUN,	Potter,	Cross Fork,	Middle West Branch Susquehanna,	2.1	
BOLIVAR BROOK,	McKean,	Tuneungwant Creek,	Upper Allegheny,	6.2	
BONNELL RUN,	Lycoming,	Little Pine Creek,	Middle West Branch Susquehanna,	7.0	
•BONNIE BROOK,	Butler,	Connoquenessing Creek,	Main Ohio,	20.1	244
BONNY BROOK,	Cumberland,	Letort Spring Run,	Lower Main Susquehanna,	3.8	
BOOK RUN,	Lancaster,	Big Beaver Creek,	Lower Main Susquehanna,	2.5	
BOONE RUN,	Somerset,	Rhoads Run,	Lower Allegheny,	4.9	
BOOSER RUN,	Dauphin,	Susquehanna River,	Lower Main Susquehanna,	0.5	
BOOTH RUN,	Mercer,	Pymatuning Creek,	Main Ohio,	11.1	
BOTTLE RUN,	Cambria,	South Fork Little Conemaugh River,	Lower Allegheny,	0.8	
BOTTLE RUN,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	4.3	
BOTTOM (BIG) RUN,	Sullivan,	Little Loyalsock Creek,	Lower West Branch Susquehanna,	3.7	
BOUGHER RUN,	Center,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	4.8	

BOW CREEK,	Delaware and Philadelphia.	Delaware River,	**Lower Delaware,**	....	
BOW CREEK,	Luzerne,	**Wapwallopen Creek,**	Lower North Branch Susquehanna	4.7	
BOWEN FORK,	Greene,	Meadow Run,	Monongahela,	1.5	
BOWERSOX RUN,	Snyder,	Middle Creek,	Middle Main Susquehanna,	3.3	
BOWERY RUN,	Lancaster,	West Branch Octoraro Creek,	Lower Main Susquehanna,	7.7	
•BOWMAN CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	119.6	245
BOWMAN CREEK, NORTH BRANCH,	Luzerne,	Bowman Creek,	Upper North Branch Susquehanna,	5.2	
BOWMAN RUN,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	1.0	
BOYD CREEK,	McKean,	Kendall Run,	Upper Allegheny,	3.0	
BOYD RUN,	Clarion,	Deer Creek,	Middle Allegheny,	2.8	
BOYD RUN,	Greene,	Ruff Creek,	Monongahela,	2.3	
BOYDS RUN,	Luzerne,	Cranberry Creek,	Lower North Branch Susquehanna,	0.9	
BOYER BROOK,	McKean,	Potato Creek,	Upper Allegheny,	3.5	
BOYER RUN,	Westmoreland,	Sewickley Creek,	Monongahela,	5.0	
BOYER MILL RUN,	Schuylkill,	Stills Run,	Lower Delaware,	4.2	
BRACE BROOK,	Susquehanna,	Lackawanna River,	Lower North Branch Susquehanna,	2.5	
BRADDOCK RUN,	Fayette,	Big Sandy Creek,	Monongahela,	1.4	
BRADDOCK RUN,	Somerset,	Youghiogheny River,	Monongahela,	4.7	
BRADEN RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	3.9	
BRADLEY RUN,	Cambria,	Clearfield Creek,	Upper West Branch Susquehanna,	7.1	
BRADY RUN,	Armstrong,	Kiskiminitas River,	Lower Allegheny,	3.7	
•BRADY RUN,	Beaver,	Beaver River,	Main Ohio,	25.8	246
BRADY RUN,	Indiana,	Cush Creek,	Upper West Branch Susquehanna,	1.7	
BRADY RUN, NORTH BRANCH,	Beaver,	Brady Run,	Main Ohio,	6.5	
BRADY RUN, SOUTH BRANCH,	Beaver,	Brady Run,	Main Ohio,	14.8	
BRANCH (See significant name).					
BRANDY RUN,	Cumberland,	Conodoguinet Creek,	**Lower Main Susquehanna,**	4.6	
BRANDY RUN,	Erie,	Elk Creek,	**Erie,**	4.3	
BRANDY CAMP CREEK,	Elk,	Little Toby Creek,	**Middle Allegheny,**	11.2	
•BRANDYWINE CREEK,	Delaware,	Delaware River,	**Lower Delaware,**	301.0 in Pa.	246
BRANDYWINE CREEK,	Lebanon,	Quittapahilla Creek,	Lower Main Susquehanna,	3.3	
•BRANDYWINE CREEK, EAST BRANCH,	Chester,	Brandywine Creek,	**Lower Delaware,**	123.3	247
•BRANDYWINE CREEK, WEST BRANCH,	Chester,	Brandywine Creek,	**Lower Delaware,**	134.6	248
BRANNAN RUN,	Venango,	Allegheny River,	**Upper Allegheny,**	1.1	
•BREAKNECK CREEK,	Butler,	Connoquenessing Creek,	**Main Ohio,**	41.9	249
BREAKNECK (LITTLE) CREEK or KAUFMAN RUN),	Butler,	Breakneck Creek,	**Main Ohio,**	7.0	
BREAKNECK RUN	Fayette	Mounts Creek,	Monongahela,	9.9	
BREASTWORK RUN,	Somerset,	Deeters Run,	Upper Juniata,	8.1	
BREEVOORT RUN	Venango	Cherry Run,	Upper Allegheny,	0.8	
BREINIG RUN	Lehigh	Schaefer Run	Middle Delaware,	1.3	
BREWER RUN,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	1.9	
BREWER RUN,	Lycoming,	West Mill Creek,	Lower West Branch Susquehanna,	0.6	
BRE[illegible]	McKean,	Potato Creek,	Upper Allegheny,	7.3	
•BRIAR CREEK,	Columbia,	North Branch Susquehanna River	Lower North Branch Susquehanna,	34.2	249
BRIAR CREEK, WEST BRANCH,	Columbia,	Briar Creek,	Lower North Branch Susquehanna,	12.5	
BRIAR (LITTLE) CREEK,	Columbia,	Briar Creek,	Lower North Branch Susquehanna,	17.1	
BRIDGE BROOK,	Pike,	East Branch Wallenpaupack Creek,	Upper Delaware,	17.9	
BRIGGS RUN,	McKean,	Chappel Fork,	Upper Allegheny,	1.8	
BRIGHT RUN,	Schuylkill,	**Little Mahanoy Creek,**	Middle Main Susquehanna,	0.4	
BRINKER RUN,	Westmoreland,	Sewickley Creek,	Monongahela,	2.5	
BRINTON RUN,	Chester,	Brandywine Creek,	Lower Delaware,	1.3	
BRITTON RUN,	Cameron,	Driftwood Branch,	**Upper West Branch Susquehanna,**	1.3	
BRITTON RUN	Crawford,	East Branch Oil Creek	**Upper Allegheny,**	9.7	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
BROAD CREEK,	State of Maryland.	Susquehanna River,	Lower Main Susquehanna,	0.5 in Pa.	
BROAD RUN,	Carbon,	Nesquehoning Creek,	Middle Delaware,	2.1	
BROAD RUN,	Chester,	Valley Creek,	Lower Delaware,	4.0	
BROAD RUN,	Chester,	West Branch Brandywine Creek,	Lower Delaware,	7.0	
BROAD RUN,	Chester,	White Clay Creek,	Lower Delaware,	3.8	
BROAD RUN,	Franklin,	West Branch Conococheague Creek,	Potomac,	6.8	
BROADHEAD RUN,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	3.5	
BROAD HOLLOW RUN,	Wyoming,	Bowman Creek,	Upper North Branch Susquehanna,	0.7	
BROCK CREEK,	Bucks,	Delaware River,	Middle Delaware,	8.5	
*BRODHEADS CREEK,	Monroe,	Delaware River,	Upper Delaware,	285.0	250
*BRODHEADS CREEK, WEST BRANCH (or ANALOMINK CREEK.)	Monroe,	Brodheads Creek,	Upper Delaware,	43.0	215
*BROKENSTRAW CREEK,	Warren,	Allegheny River,	Upper Allegheny,	324.0	251
*BROKENSTRAW (LITTLE) CREEK,	Warren,	Brokenstraw Creek,	Upper Allegheny,	81.3	252
BRONSON RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	2.5	
BROOKHOUSER RUN,	Crawford,	Wolf Run,	Upper Allegheny,	2.6	
BROOKLAND RUN,	Mifflin,	Juniata River,	Lower Juniata,	5.0	
BROOKS RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	6.3	
BROWN CREEK,	Bradford,	South Branch Towanda Creek,	Upper North Branch Susquehanna,	4.5	
BROWN CREEK,	Bradford,	Sugar Creek,	Upper North Branch Susquehanna,	16.5	
*BROWN RUN,	Cambria,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	2.6	252
BROWN RUN,	Clearfield,	Alder Run,	Upper West Branch Susquehanna,	6.5	
BROWNELLER RUN,	Fayette,	Youghiogheny River,	Monongahela,	1.9	
*BROWNS CREEK,	Greene,	South Fork Tenmile Creek,	Monongahela,	45.9	253
BROWNS RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	2.5	
BROWNS RUN,	Fayette,	Monongahela River,	Monongahela,	17.6	
BROWNS RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	2.4	
BROWNS RUN,	Greene,	West Virginia Fork Fish Creek,	Main Ohio,	0.8 in Pa.	
BROWNS RUN,	Indiana,	Twolick Creek,	Lower Allegheny,	1.6	
BROWNS RUN,	Perry,	Sherman Creek,	Lower Main Susquehanna,	12.1	
BROWNS RUN,	Venango,	East Sandy Creek,	Upper Allegheny,	2.0	
*BROWNS RUN,	Warren,	Allegheny River,	Upper Allegheny,	24.6	254
BROWNS RUN,	Warren,	Matthews Run,	Upper Allegheny,	1.8	
BROWNS RUN, NORTH BRANCH,	Fayette,	Browns Run,	Monongahela,	8.7	
BROWNS RUN, SOUTH BRANCH,	Fayette,	Browns Run,	Monongahela,	4.7	
*BRUBAKER RUN,	Cambria,	Chest Creek,	Upper West Branch Susquehanna,	12.9	254
BRUBAKER RUN,	Lancaster,	Little Chickies Creek,	Lower Main Susquehanna,	8.5	
BRUBAKER RUN,	Lancaster,	Little Conestoga Creek,	Lower Main Susquehanna,	2.8	
BRUBAKER (LITTLE) RUN,	Cambria,	Brubaker Run,	Upper West Branch Susquehanna,	3.9	
*BRUSH CREEK,	Allegheny and Westmoreland.	Turtle Creek,	Monongahela,	56.9	255
*BRUSH CREEK,	Beaver,	Connoquenessing Creek,	Main Ohio,	55.8	256
*BRUSH CREEK,	Bedford,	Shavers Creek,	Upper Juniata,	46.4	256
BRUSH CREEK (or ROARING RUN),	Blair,	Frankstown Branch,	Upper Juniata,	3.0	

BRUSH CREEK,	Indiana,	Blacklick Creek,	Lower Allegheny,	23.9	
*BRUSH CREEK,	Somerset,	Wills Creek,	Potomac,	32.4	257
BRUSH CREEK,	Westmoreland,	Jacobs Creek,	Monongahela,	5.8	
BRUSH CREEK, SOUTH BRANCH,	Indiana,	Brush Creek,	Lower Allegheny,	3.0	
BRUSH (LITTLE) CREEK,	Fulton,	Brush Creek,	Upper Juniata,	20.9	
BRUSH (LITTLE) CREEK,	Indiana,	Brush Creek,	Lower Allegheny,	4.8	
BRUSH (SOUTH) CREEK,	Fulton,	Brush Creek,	Upper Juniata,	13.7	
BRUSH FORK,	Greene,	Browns Creek,	Monongahela,	7.1	
BRUSH RUN,	Adams,	Swift Run,	Lower Main Susquehanna,	3.0	
BRUSH RUN,	Beaver,	North Fork Little Beaver River,	Main Ohio,	14.7	
BRUSH RUN,	Bedford,	Dunning Creek,	Upper Juniata,	2.7	
BRUSH RUN,	Blair,	Beaverdam Branch Frankstown Branch,	Upper Juniata,	11.7	
BRUSH RUN,	Clarion,	Piney Creek,	Middle Allegheny,	12.6	
BRUSH RUN,	Indiana,	Crooked Creek,	Middle Allegheny,	2.6	
BRUSH RUN,	Washington,	Buffalo Creek,	Main Ohio,	21.6	
BRUSH RUN,	Washington,	Chartiers Creek,	Main Ohio,	10.3	
BRUSH RUN,	Washington,	Little Tenmile Creek,	Monongahela,	3.3	
BRUSH RUN,	Washington,	Raccoon Creek,	Main Ohio,	6.3	
BRUSH RUN,	Westmoreland,	Brush Creek,	Monongahela,	13.5	
BRUSH CAMP RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	0.7	
BRUSHY FORK,	Greene,	Pennsylvania Fork Dunkard Creek,	Monongahela,	1.9	
BRUSHY RUN,	Schuylkill,	Little Schuylkill River,	Lower Delaware,	1.8	
BUBBLES RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	7.7	
BUBBLING SPRINGS RUN,	Montgomery,	Schuylkill River,	Lower Delaware,	2.3	
BUCK CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	7.6	
BUCK RUN,	Beaver,	Connoquenessing Creek,	Main Ohio,	0.5	
*BUCK RUN,	Chester,	West Branch Brandywine Creek,	Lower Delaware,	48.4	257
BUCK RUN,	Chester and Lancaster,	East Branch Octoraro Creek,	Lower Main Susquehanna,	17.8	
BUCK RUN,	Fayette,	Indian Creek,	Monongahela,	12.9	
BUCK RUN (or TROUT RUN),	Franklin,	West Branch Conococheague Creek,	Potomac,	11.5	
BUCK RUN,	Indiana	Twolick Creek,	Lower Allegheny,	3.1	
BUCK RUN,	Lycoming,	Wendell Run,	Lower West Branch Susquehanna,	9.9	
BUCK RUN,	McKean,	Allegheny Portage Creek,	Upper Allegheny,	7.4	
BUCK RUN,	McKean,	Instanter Creek,	Middle Allegheny,	1.2	
BUCK RUN,	Northumberland	Shamokin Creek,	Middle Main Susquehanna,	1.3	
BUCK RUN,	Potter,	Cushing Creek,	Middle West Branch Susquehanna,	2.4	
BUCK RUN,	Somerset,	Stony Creek,	Lower Allegheny,	3.1	
BUCK RUN,	Tioga,	Cedar Run,	Middle West Branch Susquehanna,	2.6	
BUCK RUN,	Washington,	Buffalo Creek,	Main Ohio,	5.7	
BUCK RUN, NORTH FORK,	Fayette,	Buck Run,	Monongahela,	7.9	
BUCK RUN, NORTH FORK, MIDDLE FORK,	Fayette,	North Fork Buck Run,	Monongahela,	3.8	
BUCKEYE BRANCH,	Lycoming,	Otter Run,	Middle West Branch Susquehanna,	5.4	
BUCK HILL BRANCH,	Monroe,	Brodheads Creek,	Upper Delaware,	9.0	
BUCKS CREEK,	Bradford,	Bentley Creek,	Upper North Branch Susquehanna,	11.7	
BUCKWHEAT RUN,	Perry,	Raccoon Creek,	Lower Juniata,	2.6	
*BUFFALO CREEK,	Armstrong and Butler,	Allegheny River,	Lower Allegheny,	170.3	258
*BUFFALO CREEK,	Bedford,	Raystown Branch	Upper Juniata,	25.5	259
*BUFFALO CREEK,	Perry,	Juniata River,	Lower Juniata,	69.7	259
*BUFFALO CREEK,	Somerset,	Casselman River,	Monongahela,	31.0	260
*BUFFALO CREEK,	Union,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	128.2	261
*BUFFALO CREEK	Washington,	Ohio River,	Main Ohio,	111.7 in Pa.	261

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
•BUFFALO CREEK, NORTH BRANCH,	Union,	Buffalo Creek,	Lower West Branch Susquehanna,	16.2	262
•BUFFALO (LITTLE) CREEK,	Butler,	Buffalo Creek,	Lower Allegheny,	25.9	262
BUFFALO (LITTLE) CREEK,	Perry,	Juniata River,	Lower Juniata,	19.3	
BUFFALO (LITTLE) CREEK,	Union,	Buffalo Creek,	Lower West Branch Susquehanna,	17.5	
BUFFALO RUN,	Butler,	Buffalo Creek,	Lower Allegheny,	19.0	
•BUFFALO RUN,	Center,	Spring Creek,	Middle West Branch Susquehanna,	35.4	263
BUFFALO RUN,	Westmoreland,	Sewickley Creek,	Monongahela,	10.1	
BUFFALO RUN,	State of Maryland.	Youghiogheny River,	Monongahela,	1.4 in Pa.	
BUFFALO (LITTLE) RUN,	Butler,	Buffalo Creek,	Lower Allegheny,	14.3	
BUFFALO SPRING RUN,	Lebanon,	Hammer Creek,	Lower Main Susquehanna,	6.1	
•BULL CREEK,	Allegheny,	Allegheny River,	Lower Allegheny,	50.0	264
BULL (LITTLE) CREEK,	Allegheny,	Bull Creek,	Lower Allegheny,	11.9	
BULL RUN,	Allegheny,	Monongahela River,	Monongahela,	5.3	
•BULLARD CREEK,	Bradford,	Wysox Creek,	Upper North Branch Susquehanna,	25.5	264
BULLET RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	4.9	
BULLION RUN,	Venango,	Scrubgrass Creek,	Upper Allegheny,	7.3	
BULLOCK RUN,	Armstrong,	North Fork Pine Creek,	Middle Allegheny,	2.5	
BULLS RUN,	York,	Susquehanna River,	Lower Main Susquehanna,	0.7	
BULLY HOLLOW RUN,	Warren,	Allegheny River,	Upper Allegheny,	2.8	
BUNISER RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	5.2	
BURELL CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	15.5	
BURGETTS FORK,	Washington,	Raccoon Creek,	Main Ohio,	18.1	
•BURGOON RUN,	Blair,	Beaverdam Branch Frankstown Branch.	Upper Juniata,	14.8	265
BURGOON RUN,	Cambria,	Bear Rock Run,	Lower Allegheny,	2.1	
BURGOON RUN,	Cambria,	Slatelick Run,	Upper West Branch Susquehanna,	7.0	
BURNS CREEK,	Bedford,	Shawnee Branch,	Upper Juniata,	4.1	
BURNS CREEK,	Fulton,	Little Tonoloway Creek,	Potomac,	4.8	
BURNS RUN,	Center,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	9.9	
BURNS RUN,	Elk,	Kersey Run,	Upper West Branch Susquehanna,	0.7	
BUSH KILL,	Pike,	Delaware River,	Upper Delaware,	6.7	
BUSH RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	3.6	
BUSH RUN,	Greene,	Monongahela River,	Monongahela,	1.1	
BUSH RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	1.8	
•BUSHKILL CREEK,	Northampton,	Delaware River,	Upper Delaware,	74.8	266
•BUSHKILL (BIG) CREEK,	Monroe and Pike,	Delaware River,	Upper Delaware,	149.2	266
•BUSHKILL (LITTLE) CREEK,	Pike,	Big Bushkill Creek,	Upper Delaware,	26.5	267
•BUSHKILL (MIDDLE) CREEK (or SAW CREEK),	Pike,	Big Bushkill Creek,	Upper Delaware,	31.1	540
BUSHY FORK,	Bedford,	Town Creek,	Potomac,	6.6	
BUTCHER CREEK,	Schuylkill,	West Branch Schuylkill River,	Lower Delaware,	2.2	
BUTCHER RUN,	Butler,	Connoquenessing Creek,	Main Ohio,	4.0	
BUTCHERY CREEK,	Mercer,	Sandy Creek,	Upper Allegheny,	4.0	
BUTE RUN,	Fayette,	Redstone Creek,	Monongahela,	7.0	
BUTLER CREEK,	Potter,	Honeoye Creek,	Upper Allegheny,	3.1	

•BUTLER CREEK,	Susquehanna,	Tunkhannock Creek,	Upper North Branch Susquehanna,	7.3	268
BUTLER RUN,	Crawford,	Inlet Run,	Upper Allegheny,	0.4	
BUTLER RUN,	Fayette,	Mounts Creek,	Monongahela,	3.8	
BUTLER RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	0.5	
BUTREE RUN,	York,	Little Falls,	Lower Main Susquehanna,	2.9 in Pa.	
BUTTER CREEK,	Bucks,	East Swamp Creek,	Lower Delaware,	4.4	
•BUTTERMILK CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	27.3	269
BUTTERNUT CREEK,	Wayne,	West Branch Wallenpaupack Creek,	Upper Delaware,	9.5	
BUTTERNUT RUN,	Luzerne,	Bowman Creek,	Upper North Branch Susquehanna,	2.4	
BUTTON HOLLOW,	Tioga,	Crooked Creek,	Upper North Branch Susquehanna,	0.5	
•BUTTONWOOD CREEK (or SOLOMON CREEK,)	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	17.6	269
BUZZARD RUN,	Greene,	Bisset Run,	Main Ohio,	0.7	
BYBERRY CREEK,	Philadelphia,	Poquessing Creek,	Lower Delaware,	7.7	
BYERS RUN,	Westmoreland,	Lyons Run,	Monongahela,	3.9	
•BYRNE RUN,	Cambria,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	4.4	270
CABIN CREEK,	York,	Susquehanna River,	Lower Main Susquehanna,	14.2	
CABIN RUN,	Potter,	Cushing Creek,	Middle West Branch Susquehanna,	0.7	
CABLE HOLLOW,	Warren,	Jackson Run,	Upper Allegheny,	3.0	
CABLE RUN,	Jefferson,	Sandy Lick Creek,	Middle Allegheny,	1.0	
CACOOSING CREEK,	Berks,	Tulpehocken Creek,	Lower Delaware,	19.9	
CACOOSING (LITTLE) CREEK,	Berks,	Cacoosing Creek,	Lower Delaware,	6.7	
CADY RUN,	McKean,	Allegheny Portage Creek,	Upper Allegheny,	0.9	
CAHOON RUN,	Clinton,	Kettle Creek,	Middle West Branch Susquehanna,	1.9	
CAIN RUN (or LITTLE CHERRY RUN),	Venango,	Cherry Tree Run,	Upper Allegheny,	2.7	
CALABA RUN,	Venango,	Cornplanter Run,	Upper Allegheny,	0.9	
CALAMUS RUN,	Lancaster,	Little Beaver Creek,	Lower Main Susquehanna,	2.8	
CALDENO CREEK,	Monroe,	Cherry Creek,	Upper Delaware,	1.5	
•CALDWELL CREEK,	Crawford,	Oil Creek,	Upper Allegheny,	90.6	271
CALDWELL CREEK, EAST BRANCH,	Warren,	Caldwell Creek,	Upper Allegheny,	14.3	
CALDWELL CREEK, MIDDLE BRANCH,	Warren,	West Branch Caldwell Creek,	Upper Allegheny,	3.7	
CALDWELL CREEK, WEST BRANCH,	Warren,	Caldwell Creek,	Upper Allegheny,	19.6	
CALDWELL RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	1.4	
CALER RUN,	Lycoming,	West Mill Creek,	Lower West Branch Susquehanna,	2.1	
CALENDAR RUN,	Somerset,	Stony Creek,	Lower Allegheny,	26.0	
CALIFORNIA BROOK,	Tioga,	Cowanesque River,	Upper North Branch Susquehanna,	5.0	
CALIFORNIA CREEK,	Potter,	Genesee Fork,	Middle West Branch Susquehanna,	4.8	
•CALKINS CREEK,	Wayne,	Delaware River,	Upper Delaware,	45.7	271
CALKINS CREEK, NORTH BRANCH,	Wayne,	Calkins Creek,	Upper Delaware,	24.5	
CALKINS CREEK, SOUTH BRANCH,	Wayne,	Calkins Creek,	Upper Delaware,	20.5	
CALLAHAN RUN,	Lycoming,	Little Pine Creek,	Middle West Branch Susquehanna,	3.9	
CALLAHAN RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	4.0	
CALLAHAN RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	1.9	
CALLEN RUN,	Jefferson,	Clarion River,	Middle Allegheny,	6.2	
CALVAN CLARK RUN,	Mercer,	Little Shenango River,	Main Ohio,	4.0	
CALVIN RUN,	Greene,	Dunkard Creek,	Monongahela,	5.5	
CALVIN RUN, NORTH BRANCH,	Greene,	Calvin Run,	Monongahela,	1.8	
CAMP CREEK,	Bradford,	Wyalusing Creek,	Upper North Branch Susquehanna,	3.9	
CAMP CREEK,	Westmoreland,	Indian Creek,	Monongahela,	7.5	
CAMP RUN,	Armstrong,	Mahoning Creek,	Middle Allegheny,	3.8	
•CAMP RUN,	Beaver,	Connoquenessing Creek,	Main Ohio,	14.8	272
CAMP RUN,	Delaware,	Darby Creek,	Lower Delaware,	0.2	
CAMP RUN,	Jefferson,	Sandy Lick Creek,	Middle Allegheny,	2.2	
CAMP RUN,	Warren,	East Hickory Creek,	Upper Allegheny,	2.9	
CAMP (NORTH) RUN,	Clearfield,	Chest Creek,	Upper West Branch Susquehanna,	4.3	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
CAMPBELL RUN,	Armstrong,	Crooked Creek,	Middle Allegheny,	6.1	
CAMPBELL RUN,	Clearfield,	Little Clearfield Creek,	Upper West Branch Susquehanna,	2.2	
CAMPBELL RUN,	Franklin,	Back Creek,	Potomac,	11.9	
CAMPBELL RUN,	Jefferson,	Cedar Run,	Middle Allegheny,	2.9	
CAMPBELL RUN,	Warren,	Kinzua Creek,	Upper Allegheny,	2.0	
CAMPBELLS CREEK,	Allegheny,	Chartiers Creek,	Main Ohio,	5.5	
CAMP HOPE RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	1.5	
CANADA CREEK,	Tioga,	Marsh Creek,	Middle West Branch Susquehanna,	4.4	
CANADOCHLY CREEK (or SHRONTZ CREEK,)	York,	Susquehanna River,	Lower Main Susquehanna,	3.3	
•CANAWACTA CREEK,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	11.0	273
•CANOE CREEK,	Blair,	Frankstown Branch,	Upper Juniata,	27.6	273
CANOE CREEK,	Clarion,	Clarion River,	Middle Allegheny,	18.5	
•CANOE CREEK,	Jefferson,	Mahoning Creek,	Middle Allegheny,	30.4	274
CANOE CREEK,	York,	Kreutz Creek,	Lower Main Susquehanna,	3.5	
CANOE RUN,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	3.1	
CANOE RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	1.0	
CANOE RUN,	Lycoming,	Larry Creek,	Lower West Branch Susquehanna,	2.4	
CANOE CAMP CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	11.3	
CARRAUGH RUN,	Franklin,	Rocky Mountain Creek,	Potomac,	21.7	
CARBON RUN,	Northumberland,	Shamokin Creek,	Middle Main Susquehanna,	8.8	
CARD CREEK,	Potter,	Allegheny River,	Upper Allegheny,	5.4	
CAREY RUN,	Clinton,	Kettle Creek,	Middle West Branch Susquehanna,	0.7	
CARNAHAN RUN,	Armstrong,	Kiskiminitas River,	Lower Allegheny,	14.1	
CARNEY RUN,	Cambria,	North Branch Blacklick Creek,	Lower Allegheny,	3.5	
CARNEY RUN,	Venango,	Allegheny River,	Upper Allegheny,	0.9	
CARP CREEK,	Schuylkill,	West Branch Schuylkill River,	Lower Delaware,	0.3	
CARPENTER RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	12.9	
CARPENTER RUN,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	4.4	
CARPSROCUS CREEK,	Carbon,	Mud Run,	Middle Delaware,	10.2	
CARR RUN,	Crawford,	Cussewago Creek,	Upper Allegheny,	22.3	
CARR RUN (or KERR RUN),	Indiana,	Mahoning Creek,	Middle Allegheny,	3.3	
CARRIER RUN,	Jefferson,	Redbank Creek,	Middle Allegheny,	1.9	
CARRS RUN,	Butler,	South Fork Little Scrubgrass Creek,	Upper Allegheny,	2.0	
CARSON RUN,	Blair,	South Poplar Run,	Upper Juniata,	5.5	
CARSON RUN,	Lycoming,	Little Pine Creek,	Middle West Branch Susquehanna,	0.4	
CARTER CREEK,	York,	North Branch Muddy Creek,	Lower Main Susquehanna,	3.0	
CARTER RUN,	Lancaster,	Conowingo Creek,	Lower Main Susquehanna,	2.6	
CASCADE CREEK,	Erie,	Lake Erie,	Erie,	8.0	
CASCADE CREEK,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	2.8	
CASCADE RUN,	Washington,	Little Chartiers Creek,	Main Ohio,	3.0	
CASH CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	3.5	
•CASSELMAN RIVER,	Somerset,	Youghiogheny River,	Monongahela,	576.0	274
CASTILE RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	6.4	
CASTLEMAN RUN,	Washington,	Buffalo Creek,	Main Ohio,	3.8	
CAT RUN,	Schuylkill,	Mahanoy Creek,	Middle Main Susquehanna,	0.7	

CATASAUQUA CREEK,	Lehigh,	Lehigh River,	Middle Delaware,	14.6	
*CATAWISSA CREEK,	Columbia,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	155.4	275
CATAWISSA (LITTLE) CREEK,	Schuylkill,	Catawissa Creek,	Lower North Branch Susquehanna,	16.5	
CATFISH RUN,	Allegheny,	Piney Fork,	Monongahela,	3.8	
CATFISH RUN,	Clarion,	Allegheny River,	Middle Allegheny,	9.4	
CATHCART RUN,	Armstrong,	Mahoning Creek,	Middle Allegheny,	2.2	
CATHER RUN,	Clarion,	Clarion River,	Middle Allegheny,	21.0	
*CATLIN HOLLOW RUN,	Tioga,	Crooked Creek,	Upper North Branch Susquehanna,	28.9	276
CATS CREEK,	Fayette,	Monongahela River,	Monongahela,	4.1	
CAVE HOLLOW,	Fayette,	George Creek,	Monongahela,	2.0	
CAYLOR RUN,	Jefferson,	Pine Run,	Middle Allegheny,	1.6	
CAYUTA CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	148.0	
CEDAR CREEK,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	5.5	
CEDAR CREEK,	Lehigh,	Little Lehigh Creek,	Middle Delaware,	14.8	
CEDAR CREEK,	Westmoreland,	Youghiogheny River,	Monongahela,	6.1	
CEDAR (LITTLE) CREEK,	Lehigh,	Cedar Creek,	Middle Delaware,	4.8	
CEDAR RUN,	Allegheny,	Deer Creek,	Lower Allegheny,	4.0	
CEDAR RUN,	Cambria,	Beaverdam Run,	Lower Allegheny,	3.2	
CEDAR RUN,	Center,	Spring Creek,	Middle West Branch Susquehanna,	10.2	
CEDAR RUN,	Clinton,	Big Fishing Creek,	Middle West Branch Susquehanna,	12.1	
CEDAR RUN (or **CODER RUN**),	Jefferson,	Redbank Creek,	Middle Allegheny,	9.8	
*CEDAR RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	45.9	277
CENTER BRANCH (See name of main stream).					
CENTERVILLE CREEK,	York,	South Branch Codorus Creek,	**Lower Main Susquehanna,**	8.1	
CHALFONT RUN,	Allegheny,	Thompson Run,	**Monongahela,**	4.3	
CHAMBERLAIN RUN,	Washington,	Raccoon Creek,	**Main Ohio,**	0.6	
CHAMBERS RUN,	Greene,	Mudlick Fork,	**Main Ohio,**	0.9	
CHAMPION RUN,	Fayette,	Indian Creek,	**Monongahela,**	10.8	
CHAMPION RUN, NORTH BRANCH,	Fayette,	Champion Run,	**Monongahela,**	2.8	
CHAMPION RUN, SOUTH BRANCH,	Fayette,	Champion Run,	**Monongahela,**	4.9	
CHANEY RUN,	Fayette,	Big Sandy Creek,	**Monongahela,**	3.1	
CHAPMAN RUN,	Bedford,	Shavers Creek,	**Upper Juniata,**	4.6	
*CHAPPEL FORK,	McKean,	Kinzua Creek,	**Upper Allegheny,**	27.6	278
CHAPPEL FORK, NORTH FORK,	McKean,	Chappel Fork,	**Upper Allegheny,**	6.8	
CHARLEY RUN,	Venango,	Allegheny River,	**Upper Allegheny,**	3.1	
CHARTIERS BRANCH,	Washington	Chartiers Creek,	**Main Ohio,**	6.1	
*CHARTIERS CREEK,	Allegheny,	Ohio River,	**Main Ohio,**	278.1	278
*CHARTIERS (LITTLE) CREEK,	Washington,	Chartiers Creek,	**Main Ohio,**	47.5	279
CHARTIERS RUN,	Washington,	Chartiers Creek,	**Main Ohio,**	22.4	
CHARTIERS RUN,	Westmoreland,	Allegheny River,	**Lower Allegheny,**	10.7	
*CHATHAM RUN,	Clinton	West Branch Susquehanna River,	**Middle West Branch Susquehanna,**	22.0	280
*CHEAT RIVER,	Fayette	Monongahela River,	**Monongahela,**	1,427.0	280
CHEESE RUN,	Indiana	Curry Run	**Middle Allegheny,**	3.6	
CHEESEMAN RUN,	Lawrence,	Slippery Rock Creek,	**Main Ohio,**	2.3	
CHEHOCTON CREEK,	Wayne	West Branch Delaware River,	**Upper Delaware,**	14.5	
*CHEMUNG RIVER,	Bradford,	North Branch Susquehanna River,	**Upper North Branch Susquehanna,**	2,520.0	281
*CHERRY CREEK,	Monroe,	Delaware River,	**Upper Delaware,**	24.0	282
CHERRY CREEK,	Warren,	South Branch Tionesta Creek,	**Upper Allegheny,**	3.0	
*CHERRY RUN,	Armstrong,	Crooked Creek,	**Middle Allegheny,**	26.8	283
CHERRY RUN,	Cambria,	Stony Creek,	**Lower Allegheny,**	2.6	
CHERRY RUN,	Center,	North Fork Beech Creek,	**Middle West Branch Susquehanna,**	4.5	
CHERRY RUN,	Clarion,	Licking Creek,	**Middle Allegheny,**	21.3	
CHERRY RUN,	Clinton,	Big Fishing Creek,	**Middle West Branch Susquehanna,**	9.6	
CHERRY RUN	Elk	Bennett Branch	**Upper West Branch Susquehanna,**	4.[illegible]	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
CHERRY RUN,	Indiana,	Twolick Creek,	Lower Allegheny,	15.9	
CHERRY RUN,	Jefferson,	Little Sandy Creek,	Middle Allegheny,	5.3	
CHERRY RUN,	Sullivan,	Muncy Creek,	Lower West Branch Susquehanna,	3.7	
CHERRY RUN,	Venango,	Oil Creek,	Upper Allegheny,	12.6	
CHERRY RUN,	Washington,	Raccoon Creek,	Main Ohio,	3.0	
CHERRY RUN, NORTH BRANCH,	Armstrong,	Cherry Run,	Middle Allegheny,	10.1	•
CHERRY (LITTLE) RUN (or CAIN RUN),	Venango,	Cherry Tree Run,	Upper Allegheny,	2.7	
CHERRY TREE RUN,	Venango,	Oil Creek,	Upper Allegheny,	16.1	
•CHEST CREEK,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	132.2	283
•CHESTER CREEK,	Delaware,	Delaware River,	Lower Delaware,	66.6	284
CHESTER CREEK, WEST BRANCH,	Delaware,	Chester Creek,	Lower Delaware,	19.0	
CHESTNUT RUN,	Mercer,	Pymatuning Creek,	Main Ohio,	3.9	
•CHICKIES (BIG) CREEK,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	127.4	285
•CHICKIES (LITTLE) CREEK,	Lancaster,	Big Chickies Creek,	Lower Main Susquehanna,	45.2	286
•CHILLISQUAQUE CREEK,	Northumberland,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	109.2	287
•CHOCONUT CREEK,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	29.0 in Pa.	287
CHOKE CREEK,	Lackawanna and Luzerne,	Lehigh River,	Middle Delaware,	3.9	
CHRISTIANA CREEK,	Chester,	Delaware River,	Lower Delaware,	97.2 in Pa	
CHRISTIE HOLLOW,	Cambria,	Bear Rock Run,	Lower Allegheny,	1.3	
CHRISTNER RUN,	Somerset,	Whites Creek,	Monongahela,	5.9	
CHRISTY RUN,	Butler,	South Branch Slippery Rock Creek,	Main Ohio,	2.9	
CHRONE RUN,	Delaware,	Chester Creek,	Lower Delaware,	1.8	
CHUB RUN,	Bucks,	Neshaminy Creek,	Middle Delaware,	1.2	
CHUB RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	0.5	
CHUB RUN,	Somerset,	Mill Run,	Monongahela,	2.2 in Pa.	
CHURCH RUN,	Crawford,	Oil Creek,	Upper Allegheny,	4.2	
CIDER RUN,	Wyoming,	Bowman Creek,	Upper North Branch Susquehanna,	2.4	
CLAPBOARD RUN	Cambria,	Little Conemaugh River,	Lower Allegheny,	4.3	
•CLARION (WEST) CREEK,	Elk,	West Branch Clarion River,	Middle Allegheny,	41.7	288
•CLARION RIVER,	Clarion,	Allegheny River,	Middle Allegheny,	1,231.6	288
•CLARION RIVER, EAST BRANCH,	Elk,	Clarion River,	Middle Allegheny,	110.0	288
CLARION RIVER, EAST BRANCH, MIDDLE FORK,	Elk,	East Branch Clarion River,	Middle Allegheny,	6.9	
•CLARION RIVER, WEST BRANCH,	Elk,	Clarion River,	Middle Allegheny,	90.3	290
•CLARK CREEK,	Dauphin,	Susquehanna River,	Lower Main Susquehanna,	45.2	290
CLARK CREEK,	Wayne,	Lackawanna River,	Lower North Branch Susquehanna,	3.0	
CLARK RUN,	Indiana,	Conemaugh River,	Lower Allegheny,	0.7	
CLARK RUN,	Venango,	Allegheny River,	Upper Allegheny,	1.1	
CLARK RUN,	Warren,	Allegheny River,	Upper Allegheny,	2.8	
CLARKS RUN,	Beaver,	Beaver River,	Main Ohio,	3.9	
CLARKS RUN,	Lebanon,	Swatara Creek,	Lower Main Susquehanna,	6.2	
CLAWSON RUN,	Greene,	Pennsylvania Fork Dunkard Creek,	Monongahela,	1.1	
CLEAR CREEK,	Bedford,	Raystown Branch,	Upper Juniata,	23.2	
CLEAR CREEK,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	19.8	
CLEAR CREEK,	Jefferson,	Clarion River,	Middle Allegheny,	12.0	

CLEAR RUN,	Jefferson,	North Fork Redbank Creek,	Middle Allegheny,	3.4	
CLEAR RUN,	Monroe,	Upper Tunkhannock Creek,	Middle Delaware,	7.6	
CLEAR RUN,	Somerset,	Calendar Run,	Lower Allegheny,	6.0	
CLEAR RUN,	Somerset,	Laurel Hill Creek,	Monongahela,	5.3	
*CLEARFIELD CREEK,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	396.4	291
CLEARFIELD CREEK, UPPER NORTH BRANCH.	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	12.2	
*CLEARFIELD (LITTLE) CREEK,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	45.7	292
*CLEAR SHADE CREEK,	Somerset,	Shade Creek,	Lower Allegheny,	31.4	292
CLEAR WATER RUN,	Elk,	Wolf Run,	Middle Allegheny,	2.1	
CLEMENT RUN,	Jefferson,	Cedar Run,	Middle Allegheny,	1.5	
CLIMBERS RUN,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	5.8	
CLOVER CREEK (or WILLOW CREEK),	Berks,	Maiden Creek,	Lower Delaware,	22.3	
*CLOVER CREEK,	Blair,	Frankstown Branch,	Upper Juniata,	48.3	293
CLOVER RUN,	Center,	Cold Stream,	Upper West Branch Susquehanna,	3.3	
CLOVER RUN,	Clearfield,	Whisky Run,	Upper West Branch Susquehanna,	1.1	
CLOVER RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	2.3	
CLOVER RUN,	Jefferson,	East Branch Mahoning Creek,	Middle Allegheny,	11.5	
CLYDE RUN,	Elk,	Clarion River,	Middle Allegheny,	3.1	
COAL BROOK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	2.2	
COAL CREEK,	Clearfield,	Sandy Lick Creek,	Middle Allegheny,	5.7	
COAL RUN,	Allegheny,	Chartiers Creek,	Main Ohio,	3.8	
COAL RUN,	Butler,	Connoquenessing Creek,	Main Ohio,	6.7	
COAL RUN,	Clarion,	Deer Creek,	Middle Allegheny,	1.4	
COAL RUN,	Clearfield,	Beaver Run,	Upper West Branch Susquehanna,	5.2	
COAL RUN,	Indiana,	Aultmans Run,	Lower Allegheny,	2.6	
COAL RUN,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	2.2	
COAL RUN,	Northumberland,	Shamokin Creek,	Middle Main Susquehanna,	5.9	
COAL RUN,	Schuylkill,	Middle Creek,	Lower Main Susquehanna,	1.0	
COAL RUN (or COLD RUN),	Schuylkill,	North Branch Mahanoy Creek,	Middle Main Susquehanna,	0.6	
COAL RUN,	Somerset,	Dark Shade Creek,	Lower Allegheny,	3.3	
COAL RUN,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	1.9	
COAL RUN,	Westmoreland,	Brush Creek,	Monongahela,	1.8	
COALBANK RUN,	Beaver,	North Fork Little Beaver River,	Main Ohio,	1.9	
COALBANK RUN,	Forest,	Doe Run,	Upper Allegheny,	0.2	
COAL BED RUN,	Warren,	Queen Creek,	Upper Allegheny,	1.5	
COALLICK RUN,	Fayette,	Redstone Creek,	Monongahela,	5.9	
COALPIT RUN,	Cambria,	South Branch Blacklick Creek,	Lower Allegheny,	3.3	
COALPIT RUN,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	13.4	
COBB HOLLOW,	Potter,	Allegheny River,	Upper Allegheny,	0.7	
COBB RUN,	Warren,	Spring Creek,	Upper Allegheny,	2.9	
COBBS CREEK,	Delaware and Philadelphia.	Darby Creek,	Lower Delaware,	23.4	
*COCALICO CREEK,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	141.4	294
COCALICO (LITTLE) CREEK,	Lancaster,	Cocalico Creek,	Lower Main Susquehanna,	14.5	
*COCOLAMUS CREEK,	Perry,	Juniata River,	Lower Juniata,	63.4	295
CODER RUN (or CEDAR RUN),	Jefferson,	Redbank Creek,	Middle Allegheny,	9.8	
CODORUS CREEK,	Schuylkill,	Locust Creek,	Lower Delaware,	2.8	
*CODORUS CREEK,	York,	Susquehanna River,	Lower Main Susquehanna,	268.0	295
*CODORUS CREEK, EAST BRANCH,	York,	South Branch Codorus Creek,	Lower Main Susquehanna,	44.6	296
*CODORUS CREEK, SOUTH BRANCH,	York,	Codorus Creek,	Lower Main Susquehanna,	116.8	297
*CODORUS CREEK, WEST BRANCH,	York,	Codorus Creek,	Lower Main Susquehanna,	90.6	297
CODORUS CREEK, WEST BRANCH, EAST BRANCH.	York,	West Branch Codorus Creek,	Lower Main Susquehanna,	13.0	
COFFEE CREEK,	Warren,	Brokenstraw Creek,	Upper Allegheny,	21.5	

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COFFEE RUN,	Huntingdon,	Raystown Branch,	Upper Juniata,	7.0	
COFFEE RUN,	Lawrence,	Mahoning River,	Main Ohio,	10.5	
COFFEE RUN,	Mifflin,	West Branch Kishacoquillas Creek,	Lower Juniata,	5.8	
COFINAN RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	4.4	
COGSDELL BROOK,	McKean,	East Branch Potato Creek,	Upper Allegheny,	0.7	
COLBY RUN (or GETTY RUN),	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	6.6	
COLD BROOK,	Bradford,	Wappasening Creek,	Upper North Branch Susquehanna,	1.9	
COLD CREEK,	Bradford,	Wyalusing Creek,	Upper North Branch Susquehanna,	12.1	
COLD RUN,	Schuylkill,	Beaver Creek,	Lower Delaware,	3.2	
COLD RUN (or COAL RUN),	Schuylkill,	North Branch Mahanoy Creek,	Middle Main Susquehanna,	0.6	
*COLD STREAM,	Center,	Moshannon Creek,	Upper West Branch Susquehanna,	23.6	298
COLD SPRING CREEK,	Lackawanna,	Lehigh River,	Middle Delaware,	3.8	
COLD SPRING RUN,	Cumberland,	Spruce Run,	Lower Main Susquehanna,	1.0	
COLD SPRING RUN,	Delaware,	Ridley Creek,	Lower Delaware,	0.9	
COLD SPRING RUN,	Franklin,	Conococheague Creek,	Potomac,	1.7	
COLD SPRING RUN,	Jefferson,	Elk Run,	Middle Allegheny,	1.0	
COLD STREAM RUN,	Clearfield,	Trout Run,	Upper West Branch Susquehanna,	7.2	
*COLE CREEK,	McKean,	Potato Creek,	Upper Allegheny,	41.5	299
COLE CREEK, NORTH BRANCH,	McKean,	Cole Creek,	Upper Allegheny,	9.7	
*COLE CREEK, SOUTH BRANCH,	McKean,	Cole Creek,	Upper Allegheny,	27.8	299
COLEGROVE BROOK,	McKean,	Potato Creek,	Upper Allegheny,	7.9	
COLEMAN CREEK,	McKean,	Allegheny River,	Upper Allegheny,	2.3	
COLEMAN RUN,	Forest,	Clarion River,	Middle Allegheny,	5.5	
COLES CREEK,	Columbia,	Fishing Creek,	Lower North Branch Susquehanna,	13.1	
COLLIER RUN,	Somerset,	Mill Run,	Monongahela,	0.7 in Pa.	
COLLINS BROOK,	Wayne,	Middle Creek,	Upper Delaware,	6.1	
COLVIN RUN,	Fayette,	Redstone Creek,	Monongahela,	2.7	
COMES CREEK,	McKean,	Allegheny Portage Creek,	Upper Allegheny,	9.4	
COMFORT RUN,	Clearfield,	Wilmer Run,	Upper West Branch Susquehanna,	3.4	
COMMON CREEK,	Bucks,	Delaware River,	Middle Delaware,	12.3	
CONASHAUGH CREEK,	Pike,	Delaware River,	Upper Delaware,	2.3	
*CONEMAUGH RIVER,	Indiana and Westmoreland.	Kiskiminitas River,	Lower Allegheny,	1,375.7	394
*CONEMAUGH (LITTLE) RIVER,	Cambria,	Conemaugh River,	Lower Allegheny,	187.9	300
*CONEMAUGH (LITTLE) RIVER, NORTH BRANCH.	Cambria,	Little Conemaugh River,	Lower Allegheny,	31.7	301
*CONEMAUGH (LITTLE) RIVER, SOUTH FORK.	Cambria,	Little Conemaugh River,	Lower Allegheny,	61.7	302
*CONESTOGA CREEK,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	474.8	302
*CONESTOGA (LITTLE) CREEK,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	64.1	303
CONESTOGA (LITTLE) CREEK,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	7.5	
CONESTOGA (LITTLE) CREEK, WEST BRANCH.	Lancaster,	Little Conestoga Creek,	Lower Main Susquehanna,	12.1	
CONEWAGO CREEK,	Adams,	Conewago Creek,	Lower Main Susquehanna,	6.5	
*CONEWAGO CREEK,	Dauphin and Lancaster.	Susquehanna River,	Lower Main Susquehanna,	53.0	304

*CONEWAGO CREEK,	York,	Susquehanna River,	Lower Main Susquehanna,	510.8	306
*CONEWAGO CREEK, SOUTH BRANCH,	Adams,	Conewago Creek,	Lower Main Susquehanna,	74.9	306
CONEWAGO (LITTLE) CREEK,	Lebanon,	Conewago Creek,	Lower Main Susquehanna,	5.6	
*CONEWAGO (LITTLE) CREEK (or PARADISE CREEK),	York,	Conewago Creek,	Lower Main Susquehanna,	60.9	306
*CONEWANGO CREEK,	Warren,	Allegheny River,	Upper Allegheny,	898.0	307
CONFER CREEK,	Center,	Marsh Creek,	Middle West Branch Susquehanna,	3.4	
CONKLIN RUN,	Warren,	Allegheny River,	Upper Allegheny,	3.4	
*CONNEAUT CREEK,	Erie,	Lake Erie,	Erie,	154.0 in Pa.	308
*CONNEAUT CREEK, WEST BRANCH,	Erie,	Conneaut Creek,	Erie,	33.4	309
CONNEAUT CREEK, WEST BRANCH, EAST BRANCH,	Erie,	West Branch Conneaut Creek,	Erie,	8.5	
CONNEAUT CREEK, WEST BRANCH, MIDDLE BRANCH,	Erie,	West Branch Conneaut Creek,	Erie,	7.0	
*CONNEAUT LAKE CREEK,	Crawford,	French Creek,	Upper Allegheny,	99.6	309
*CONNEAUTTE CREEK,	Crawford,	French Creek,	Upper Allegheny,	59.7	310
CONNEAUTTE (LITTLE) CREEK,	Crawford,	Conneautte Creek,	Upper Allegheny,	17.7	
CONNELL RUN (or McCOY RUN),	Fayette,	Youghiogheny River,	Monongahela,	3.7	
CONNELLY RUN,	Warren,	Allegheny River,	Upper Allegheny,	2.6	
*CONNOQUENESSING CREEK,	Lawrence,	Beaver River,	Main Ohio,	832.7	310
*CONNOQUENESSING (LITTLE) CREEK,	Butler	Connoquenessing Creek,	Main Ohio,	63.6	312
*CONOCOCHEAGUE CREEK,	Franklin,	Potomac River,	Potomac,	499.1 in Pa.	312
*CONOCOCHEAGUE CREEK, WEST BRANCH,	Franklin,	Conococheague Creek,	Potomac,	197.4	313
*CONODOGUINET CREEK,	Cumberland,	Susquehanna River,	Lower Main Susquehanna,	483.5	314
*CONOWINGO CREEK,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	38.6	315
CONOWINGO (LITTLE) CREEK,	Lancaster	Conowingo Creek,	Lower Main Susquehanna,	6.4	
*CONOY CREEK,	Lancaster,	Susquehanna River	Lower Main Susquehanna,	18.8	316
COOK RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	21.6	
COOKS CREEK,	Bucks,	Durham Creek,	Middle Delaware,	14.5	
COOKS RUN,	Bucks,	Neshaminy Creek,	Middle Delaware,	3.7	
COOKS RUN,	York	Susquehanna River,	Lower Main Susquehanna,	0.6	
*COOL SPRING CREEK,	Mercer	Neshannock Creek,	Main Ohio,	53.1	316
COOLSPRING RUN,	Fayette,	Shutes Run	Monongahela,	3.5	
*COON CREEK	Forest	Tionesta Creek,	Upper Allegheny,	41.1	317
COON (LITTLE) CREEK,	Clarion,	Coon Creek,	Upper Allegheny,	6.4	
COON (LITTLE) CREEK,	Forest	Tionesta Creek	Upper Allegheny,	9.1	
COON HOLLOW,	Cambria,	South Fork Little Conemaugh River,	Lower Allegheny,	1.0	
COON RUN,	Elk	South Branch Tionesta Creek,	Upper Allegheny,	3.0	
COON RUN	Warren,	South Branch Tionesta Creek,	Upper Allegheny,	0.8	
COOPER RUN,	Clarion,	Paint Creek,	Middle Allegheny,	1.7	
COOPER RUN,	Forest,	Blue Jay Creek	Upper Allegheny,	1.3	
COOPERS RUN	Lancaster,	East Branch Octoraro Creek,	Lower Main Susquehanna,	6.0	
COOPERS GAP RUN,	Mifflin	East Branch Kishacoquillas Creek,	Lower Juniata,	7.3	
COOVER RUN	Lancaster,	Cocalico Creek,	Lower Main Susquehanna,	1.4	
COPLAY CREEK,	Lehigh,	Lehigh River,	Middle Delaware,	19.8	
COPPER RUN	Adams,	Toms Creek	Potomac,	1.2	
CORAY CREEK,	Luzerne,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	11.8	
CORE CREEK,	Bucks,	Neshaminy Creek,	Middle Delaware,	9.5	
CORLS RUN	Union	Penns Creek,	Middle Main Susquehanna,	1.6	
CORNPLANTER RUN,	Armstrong,	Buffalo Creek,	Lower Allegheny,	4.3	
CORNPLANTER RUN,	Venango,	Oil Creek,	Upper Allegheny,	2.7	
CORNPLANTER RUN,	Warren,	Allegheny River,	Upper Allegheny,	9.4	
CORNPLANTER RUN,	Warren,	Allegheny River,	Upper Allegheny,	3.6	
CORY CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	22.0	

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COTTON BROOK,	Potter,	Genesee River,	Genesee,	3.8	
COTTON CREEK,	Warren,	Little Brokenstraw Creek,	Upper Allegheny,	1.2	
COUNSEL RUN,	Center,	Beech Creek,	Middle West Branch Susquehanna,	5.1	
COUNTY LINE RUN,	Elk,	East Branch Clarion River,	Middle Allegheny,	7.2	
COURTLEY RUN,	Clarion,	Clarion River,	Middle Allegheny,	0.9	
•COVE CREEK,	Bedford,	Raystown Branch,	Upper Juniata,	48.5	318
•COVE CREEK,	Fulton,	Licking Creek,	Potomac,	57.7	318
COVE CREEK,	Perry,	Susquehanna River,	Lower Main Susquehanna,	6.5	
•COVE (LITTLE) CREEK,	Franklin,	Licking Creek,	Potomac,	27.8 in Pa.	319
COVE RUN,	Armstrong,	Sugar Creek,	Middle Allegheny,	2.0	
COVE RUN,	Fayette,	Redstone Creek,	Monongahela,	12.9	
COVE RUN,	Fulton,	Great Tonoloway Creek,	Potomac,	3.2	
COVEY CREEK,	Lackawanna,	Spring Brook,	Lower North Branch Susquehanna,	3.6	
•COWANESQUE RIVER,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	219.9 in Pa.	319
COWANESQUE RIVER, NORTH FORK,	Tioga,	Cowanesque River,	Upper North Branch Susquehanna,	21.8	
•COWANSHANNOCK CREEK,	Armstrong,	Allegheny River,	Middle Allegheny,	62.8	320
COWARDS RUN,	Elk,	Little Toby Creek,	Middle Allegheny,	3.5	
COX RUN,	Fayette,	Dunlap Creek,	Monongahela,	3.7	
•COXE CREEK,	Somerset,	Casselman River,	Monongahela,	55.5	321
COXE CREEK, WEST BRANCH,	Somerset,	Coxe Creek,	Monongahela,	10.0	
CRAB RUN,	Butler,	Little Connoquenessing Creek,	Main Ohio,	9.8	
CRAB RUN,	Schuylkill,	Mahanoy Creek,	Middle Main Susquehanna,	3.4	
CRABAPPLE CREEK,	Greene,	Dunkard Fork,	Main Ohio,	7.8	
CRABAPPLE RUN,	Fayette,	Redstone Creek,	Monongahela,	4.4	
CRABTREE CREEK,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	18.7	
CRABTREE (LITTLE) CREEK,	Westmoreland,	Crabtree Creek,	Lower Allegheny,	6.8	
CRAFT BROOK,	Pike,	Saw Kill,	Upper Delaware,	2.2	
CRAFT RUN,	Jefferson,	North Fork Redbank Creek,	Middle Allegheny,	3.9	
CRAFTS RUN,	Washington,	Tenmile Creek,	Monongahela,	3.8	
CRAGGS RUN,	Clarion,	Licking Creek,	Middle Allegheny,	3.0	
CRAIG BRANCH,	Fayette,	Bute Run,	Monongahela,	1.6	
CRAIG RUN,	Armstrong,	Cowanshannock Creek,	Middle Allegheny,	1.7	
CRAIG RUN,	Armstrong,	Crooked Creek,	Middle Allegheny,	2.8	
CRAIG RUN,	Greene,	Craynes Run,	Monongahela,	1.6	
CRAIG RUN,	Huntingdon,	Shade Creek,	Lower Juniata,	3.5	
CRAIG RUN,	Perry,	Losh Run,	Lower Juniata,	0.8	
CRAMER BROOK,	McKean,	West Branch Tuneungwant Creek,	Upper Allegheny,	1.6	
CRANBERRY CREEK,	Luzerne,	Black Creek,	Lower North Branch Susquehanna,	13.6	
CRANBERRY RUN,	Somerset,	Elklick Run,	Monongahela,	3.5	
CRANBERRY GLADE RUN,	Somerset,	Laurel Hill Creek,	Monongahela,	4.9	
CRANE CREEK,	Forest,	South Branch Tionesta Creek,	Upper Allegheny,	4.6	
CRANE RUN,	Elk,	South Branch Tionesta Creek,	Upper Allegheny,	1.1	
CRANES RUN,	Juniata,	Cocolamus Creek,	Lower Juniata,	5.5	
CRAWFORD BROOK,	Pike,	Delaware River,	Upper Delaware,	1.2	
CRAWFORD RUN,	Allegheny,	Wilson Run,	Lower Allegheny,	1.9	
CRAWFORD RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	1.3	

CRAWFORD RUN,	Westmoreland,	Youghiogheny River,	Monongahela,	1.8	
CRAYNES RUN,	Greene,	Ruff Creek,	Monongahela,	5.6	
CREAMERY BROOK (or LANGEN BROOK)	Lackawanna,	Roaring Brook,	Lower North Branch Susquehanna,	2.3	
CREAM VALLEY CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	1.4	
CRESHEIM CREEK,	Philadelphia,	Wissahickon Creek,	Lower Delaware,	2.4	
CRONCE BROOK,	Tioga,	Cowanesque River,	Upper North Branch Susquehanna,	3.3	
•CROOKED CREEK,	Armstrong,	Allegheny River,	Middle Allegheny,	290.0	322
CROOKED CREEK,	Elk,	East Branch Clarion River,	Middle Allegheny,	10.4	
CROOKED CREEK,	Erie,	Lake Erie,	Erie,	20.5	
•CROOKED CREEK,	Huntingdon,	Frankstown Branch,	Upper Juniata,	25.4	323
•CROOKED CREEK,	Mercer,	Little Shenango River,	Main Ohio,	43.4	323
•CROOKED CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	137.0	324
CROOKED RUN,	Allegheny,	Monongahela River,	Monongahela,	3.6	
CROOKED RUN,	Butler,	Little Connoquenessing Creek,	Main Ohio,	2.9	
CROOKED RUN,	Clearfield,	Trout Run,	Upper West Branch Susquehanna,	1.6	
CROOKED RUN,	Fulton,	Sideling Hill Creek,	Potomac,	7.2	
CROOKED RUN,	Greene,	Monongahela River,	Monongahela,	4.2 in Pa.	
CROOKED RUN,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	3.8	
CROOKED RUN,	Schuylkill,	Catawissa Creek,	Lower North Branch Susquehanna,	4.4	
CROSS CREEK,	Luzerne,	Black Creek,	Lower North Branch Susquehanna,	2.3	
•CROSS CREEK,	Washington,	Ohio River,	Main Ohio,	63.3 in Pa.	325
CROSS CREEK, NORTH FORK,	Washington,	Cross Creek,	Main Ohio,	16.4	
CROSS CREEK, NORTH FORK, MIDDLE FORK,	Washington,	North Fork Cross Creek,	Main Ohio,	4.6	
CROSS CREEK, SOUTH FORK,	Washington,	Cross Creek,	Main Ohio,	12.4	
•CROSS FORK,	Potter,	Kettle Creek,	Middle West Branch Susquehanna,	45.3	325
CROSSMAN RUN,	Jefferson,	Dutch Run,	Middle Allegheny,	2.2	
CROUSE RUN,	Allegheny,	Pine Creek,	Lower Allegheny,	4.2	
CROUSE RUN,	Warren,	Brokenstraw Creek,	Upper Allegheny,	17.6	
CROW RUN,	Elk,	Clarion River,	Middle Allegheny,	3.3	
CROW RUN,	Elk,	Spring Creek,	Middle Allegheny,	1.5	
CROWS RUN,	Beaver,	Ohio River,	Main Ohio,	13.7	
CROYLE RUN,	Cambria,	South Fork Little Conemaugh River,	Lower Allegheny,	0.2	
CROZIER HOLLOW,	Armstrong,	Allegheny River,	Middle Allegheny,	0.9	
CROZIERS RUN,	Fayette	Yorks Run,	Monongahela,	3.2	
•CRUM CREEK,	Delaware,	Delaware River,	Lower Delaware,	38.3	326
CRUM RUN,	Delaware,	Chester Creek,	Lower Delaware,	0.9	
CRUMLYNNE CREEK,	Delaware,	Crum Creek,	Lower Delaware,	3.5	
CRUPE RUN,	Washington,	Castleman Run,	Main Ohio,	0.6	
CUB RUN,	Somerset,	Clear Shade Creek,	Lower Allegheny,	3.2	
CUCUMBER RUN,	Fayette,	Youghiogheny River,	Monongahela,	6.3	
CULBERTSON RUN,	Chester,	East Branch Brandywine Creek,	Lower Delaware,	4.4	
CUMBERLAND VALLEY RUN,	Bedford,	Raystown Branch,	Upper Juniata,	19.3	
CUMMING RUN,	Fulton,	Little Tonoloway Creek,	Potomac,	5.4	
CUMMINGS CREEK,	Tioga,	Cowanesque River,	Upper North Branch Susquehanna,	10.1	
CUMMINS CREEK (or QUICKS MILL BROOK)	Pike,	Delaware River,	Upper Delaware,	4.5	
CURFMAN RUN,	Huntingdon,	Little Trough Creek,	Upper Juniata,	0.8	
CURRY RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	14.0	
CURRY RUN,	Indiana,	Crooked Creek,	Middle Allegheny,	11.4	
CUSH CREEK,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	21.4	
CUSH CUSHION CREEK,	Cambria and Indiana.	West Branch Susquehanna River,	Upper West Branch Susquehanna,	12.4	
•CUSHING CREEK,	Potter,	Pine Creek,	Middle West Branch Susquehanna,	44.1	327

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CUSHING HOLLOW RUN,	Potter,	Genesee Fork,	Middle West Branch Susquehanna,	5.6	
CUSHMAN FORK,	Tioga,	Slate Run,	Middle West Branch Susquehanna,	2.0	
*CUSSEWAGO CREEK,	Crawford,	French Creek,	Upper Allegheny,	92.2	327
CUSSEWAGO CREEK, WEST BRANCH,	Crawford,	Cussewago Creek,	Upper Allegheny,	9.9	
CUSTER RUN,	Cambria,	Saltlick Run,	Lower Allegheny,	1.0	
CUTTALOSSA CREEK,	Bucks,	Delaware River,	Middle Delaware,	2.0	
DAGGETT CREEK,	Bradford,	Seely Creek,	Upper North Branch Susquehanna,	10.8	
DAGGETT HOLLOW,	Tioga,	Crooked Creek,	Upper North Branch Susquehanna,	5.1	
DAILY RUN,	Clearfield,	Curry Run,	Upper West Branch Susquehanna,	1.6	
DALE RUN,	Warren,	Allegheny River,	Upper Allegheny,	1.0	
DALEY RUN (or ZAHNISTER RUN),	Mercer,	Shenango River,	Main Ohio,	3.1	
DALSON RUN,	McKean,	Wilson Run,	Middle Allegheny,	2.3	
DALTON RUN,	Lackawanna,	South Branch Tunkhannock Creek,	Upper North Branch Susquehanna,	14.5	
DALTON RUN,	Somerset,	Bens Creek,	Lower Allegheny,	2.4	
DANIELS RUN,	Washington,	Tenmile Creek,	Monongahela,	17.4	
DANIELS (LITTLE) RUN,	Washington,	Daniels Run,	Monongahela,	5.1	
*DARBY CREEK,	Delaware,	Delaware River,	Lower Delaware,	78.6	328
DARBY (LITTLE) CREEK,	Delaware,	Darby Creek,	Lower Delaware,	3.7	
DARK RUN,	Perry,	Sherman Creek,	Lower Main Susquehanna,	5.6	
DARK RUN,	Schuylkill,	Catawissa Creek,	Lower North Branch Susquehanna,	5.2	
DARK HOLLOW RUN,	Bucks,	Delaware River,	Middle Delaware,	0.8	
DARK HOLLOW RUN,	Indiana,	Crooked Creek,	Middle Allegheny,	3.3	
*DARK SHADE CREEK,	Somerset,	Shade Creek,	Lower Allegheny,	32.9	329
DARK SHADE (LITTLE) CREEK,	Somerset,	Dark Shade Creek,	Lower Allegheny,	4.4	
DARLING RUN,	Tioga,	Pine Creek,	Middle West Branch Susquehanna,	2.8	
DARROW BROOK,	Erie,	West Branch French Creek,	Upper Allegheny,	6.2	
DAUGHERTY RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	4.0	
DAVIS RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	0.7	
DAVIS RUN,	Schuylkill,	Catawissa Creek,	Lower North Branch Susquehanna,	4.2	
DAWSON RUN,	Allegheny,	Deer Creek,	Lower Allegheny,	4.5	
DAWSON RUN,	Forest,	Allegheny River,	Upper Allegheny,	2.0	
DEAVER RUN,	Armstrong,	South Fork Pine Creek,	Middle Allegheny,	1.1	
DECKARD RUN,	Crawford,	Little Sugar Creek,	Upper Allegheny,	4.7	
DECKER RUN,	Blair,	Bald Eagle Creek,	Upper Juniata,	2.9	
DEE RUN,	York,	Codorus Creek,	Lower Main Susquehanna,	3.0	
DEEP BROOK,	Pike,	Vandermark Creek,	Upper Delaware,	2.2	
DEEP CREEK,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	8.2	
DEEP CREEK,	Dauphin,	Mahantango Creek,	Middle Main Susquehanna,	10.5	
DEEP CREEK,	Montgomery,	Perkiomen Creek,	Lower Delaware,	6.2	
*DEEP CREEK,	Schuylkill,	Pine Creek,	Middle Main Susquehanna,	33.3	329
DEEP CREEK,	York,	Broad Creek,	Lower Main Susquehanna,	0.5 in Pa.	
DEEP HOLLOW,	Luzerne,	Mill Creek,	Lower North Branch Susquehanna,	1.1	
DEEP RUN,	Bucks,	Tohickon Creek,	Middle Delaware,	10.0	
DEEP RUN,	Carbon,	Nesquehoning Creek,	Middle Delaware,	2.3	
DEEP RUN,	Crawford,	Rattling Run,	Upper Allegheny,	1.0	
DEEP RUN,	Lebanon,	Elizabeth Run,	Lower Main Susquehanna,	1.8	

DEEP RUN,	Lebanon,	Little Swatara Creek,	Lower Main Susquehanna,	6.0	
DEEP RUN,	Luzerne,	Black Creek,	Lower North Branch Susquehanna,	0.5	
DEEP HOLLOW RUN,	Sullivan,	Muncy Creek,	Lower West Branch Susquehanna,	2.2	
•DEER CREEK,	Allegheny,	Allegheny River,	Lower Allegheny,	51.3	330
•DEER CREEK,	Clarion,	Clarion River,	Middle Allegheny,	68.9	330
DEER CREEK,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	19.4	
DEER CREEK,	Lawrence,	Shenango River,	Main Ohio,	13.0	
DEER CREEK,	York,	Susquehanna River,	Lower Main Susquehanna,	160.0	
DEER CREEK, BIG BRANCH,	York,	Deer Creek,	Lower Main Susquehanna,	2.3 in Pa.	
DEER CREEK, WEST BRANCH,	Allegheny,	Deer Creek,	Lower Allegheny,	3.6	
DEER (LITTLE) CREEK,	Allegheny,	Deer Creek,	Lower Allegheny,	13.8	
DEER (LITTLE) CREEK,	Clarion,	Deer Creek,	Middle Allegheny,	17.5	
DEER (LITTLE) CREEK,	Mercer,	Little Yankee Creek,	Main Ohio,	7.8	
DEER (NORTH) CREEK,	Mercer,	French Creek,	Upper Allegheny,	18.6	
DEER RUN,	Bucks,	Tohickon Creek,	Middle Delaware,	4.6	
DEER RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	8.1	
DEERLICK CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	2.4	
DEERLICK CREEK,	Susquehanna,	East Branch Wyalusing Creek,	Upper North Branch Susquehanna,	8.8	
DEERLICK RUN,	Warren,	Twomile Run,	Upper Allegheny,	3.6	
•DEETERS RUN,	Bedford,	Raystown Branch,	Upper Juniata,	43.8	331
DE HAAS RUN,	Schuylkill,	West Branch Fishing Creek,	Lower Main Susquehanna,	1.0	
DELAWARE CREEK,	Juniata,	Juniata River,	Lower Juniata,	11.8	
•DELAWARE RIVER,	Delaware,	Delaware Bay,	Delaware,	12,012.0	331
•DELAWARE RIVER, WEST BRANCH,	Wayne,	Delaware River,	Upper Delaware,	660.0	331
DELAWARE RUN,	Northumberland,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	14.7	
DELLINGER RUN,	Lancaster,	Big Chickies Creek,	Lower Main Susquehanna,	3.2	
DENNIS CREEK,	Franklin,	Back Creek,	Potomac,	10.0	
DENNIS RUN,	Chester,	West Branch Brandywine Creek,	Lower Delaware,	2.0	
DENNISON RUN,	Venango,	Allegheny River,	Upper Allegheny,	3.9	
•DENT RUN,	Elk,	Bennett Branch,	Upper West Branch Susquehanna,	36.4	334
DETWEILER RUN,	Huntingdon,	Standing Stone Creek,	Upper Juniata,	1.5	
DEVILS RACE COURSE,	Dauphin,	Rattling Run,	Lower Main Susquehanna,	1.2	
DEWITT RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	4.4	
DIAMOND RUN,	Blair,	Bobs Creek,	Upper Juniata,	0.9	
DICKERSON RUN,	Fayette,	Youghiogheny River,	Monongahela,	5.9	
DICKS RUN,	Center	Bald Eagle Creek,	Middle West Branch Susquehanna,	9.1	
DICKS RUN,	Delaware,	Crum Creek,	Lower Delaware,	1.0	
DILLOE RUN,	Washington,	Raccoon Creek,	Main Ohio,	2.2	
DILLTOWN CREEK,	Carbon,	Mud Run,	Middle Delaware,	9.8	
DILLWORTH RUN,	Chester,	Brandywine Creek,	Lower Delaware,	1.2	
DILWORTH RUN,	Beaver,	North Fork Little Beaver River,	Main Ohio,	4.3	
DIMMICK MEADOW BROOK,	Pike,	Saw Kill,	Upper Delaware,	2.5	
DINGMAN RUN,	Potter,	Allegheny River,	Upper Allegheny,	7.8	
•DINGMANS CREEK,	Pike,	Delaware River,	Upper Delaware,	14.8	334
DIRTYCAMP RUN,	Allegheny,	Turtle Creek,	Monongahela,	3.2	
DISMAL RUN,	Delaware,	Ridley Creek,	Lower Delaware,	1.5	
DIXON RUN,	Clearfield,	Trout Run,	Upper West Branch Susquehanna,	1.3	
DIXON RUN,	Indiana,	Twolick Creek,	Lower Allegheny,	10.0	
DOBSON RUN,	Juniata,	West Branch Mahantango Creek,	Middle Main Susquehanna,	6.8	
DOCK HOLLOW,	Armstrong,	Allegheny River,	Middle Allegheny,	2.6	
DOE RUN,	Beaver,	Connoquenessing Creek,	Main Ohio,	3.3	
DOE RUN,	Chester,	Buck Run,	Lower Delaware,	21.9	
DOE RUN,	Forest,	The Branch Salmon Creek,	Upper Allegheny,	0.4	
DOE RUN,	Juniata,	Juniata River,	Lower Juniata,	12.5	
DOE RUN,	York,	Bermudian Creek,	Lower Main Susquehanna,	5.0	

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DOG RUN,	Lycoming,	First Fork Larry Creek,	Lower West Branch Susquehanna,	3.1	
DOG RUN,	Washington,	Buffalo Creek,	Main Ohio,	1.5	
DOG HOLLOW RUN,	Elk,	Clarion River,	Middle Allegheny,	5.5	
DOGWOOD RUN,	Cumberland and York,	Yellow Breeches Creek,	Lower Main Susquehanna,	8.5	
DOGWOOD (LITTLE) RUN,	Cumberland,	Yellow Breeches Creek,	Lower Main Susquehanna,	10.6	
DOLPHIN RUN,	Allegheny,	Millers Run,	Main Ohio,	2.1	
DONEGAL CREEK,	Lancaster,	Big Chickies Creek,	Lower Main Susquehanna,	17.1	
DORNBACH RUN,	Perry,	Little Juniata Creek,	Lower Main Susquehanna,	1.8	
DOUBLE RUN,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	4.0	
DOUGHERTY RUN,	Warren,	Conewango Creek,	Upper Allegheny,	1.4	
DOUGLAS RUN,	Jefferson,	North Fork Redbank Creek,	Middle Allegheny,	2.5	
DOUGLASS RUN,	Cambria,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	2.2	
DOUGLASS RUN,	Clarion,	Mill Creek,	Middle Allegheny,	6.1	
DOWNERS RUN (or NAUVOO HOLLOW CREEK),	Fayette,	Monongahela River,	Monongahela,	6.5	
DRAKE CREEK,	Carbon,	Lehigh River,	Middle Delaware,	3.3	
•DRAKE RUN,	Somerset,	Youghiogheny River,	Monongahela,	13.3	335
DRECK CREEK,	Luzerne,	Hazle Creek,	Middle Delaware,	3.8	
DRESHER RUN,	Schuylkill,	Little Catawissa Creek,	Lower North Branch Susquehanna,	0.9	
•DRIFTWOOD BRANCH,	Cameron,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	316.3	335
•DRINKER CREEK,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	9.6	336
•DRURY RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	19.1	337
DRY BROOK,	Pike,	Delaware River,	Upper Delaware,	1.2	
DRY CREEK,	Susquehanna,	Martin Creek,	Upper North Branch Susquehanna,	5.0	
DRY RUN,	Blair,	Plum Creek,	Upper Juniata,	0.8	
DRY RUN,	Bradford,	Wysox Creek,	Upper North Branch Susquehanna,	3.1	
DRY RUN,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	1.7	
DRY RUN,	Center,	Bear Run,	Middle West Branch Susquehanna,	4.2	
DRY RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	3.9	
DRY RUN,	Franklin,	West Branch Conococheague Creek,	Potomac,	10.1	
DRY RUN,	Jefferson,	Clear Creek,	Middle Allegheny,	0.8	
DRY RUN,	Lycoming,	Carpenter Run,	Lower West Branch Susquehanna,	1.0	
DRY RUN,	Lycoming,	Little Muncy Creek,	Lower West Branch Susquehanna,	1.4	
DRY RUN,	Lycoming,	Plunkett Creek,	Lower West Branch Susquehanna,	1.7	
DRY RUN,	Northampton,	Lehigh River,	Middle Delaware,	2.5	
DRY RUN,	Northumberland,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	6.5	
DRY RUN,	Potter,	Genesee Fork,	Middle West Branch Susquehanna,	1.0	
DRY RUN,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	4.4	
DRY RUN,	Washington,	Monongahela River,	Monongahela,	2.0	
DRY (SOUTH) RUN,	Blair,	Frank-town Branch,	Upper Juniata,	6.9	
DRY (UPPER) RUN,	Beaver,	Ohio River,	Main Ohio,	6.3	
DRY HOLLOW CREEK,	Schuylkill,	Little Schuylkill River,	Lower Delaware,	1.0	
DRY VALLEY CREEK,	Lackawanna,	Covey Creek,	Lower North Branch Susquehanna,	1.4	
•DU BOIS CREEK,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	14.6	337
DUCK RUN,	Clinton,	Big Fishing Creek,	Middle West Branch Susquehanna,	1.6	

DUCK RUN,	Lawrence,	Connoquenessing Creek,	Main Ohio,	5.9	
DUFFS RUN,	Allegheny,	Chalfont Run,	Monongahela,	0.8	
DUGAN RUN,	Mercer,	Sandy Creek,	Upper Allegheny,	2.8	
DUGANS RUN,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	0.8	
•DUNBAR CREEK,	Fayette,	Youghiogheny River,	Monongahela,	78.0	338
•DUNKARD CREEK,	Greene,	Monongahela River,	Monongahela,	200.1	339
•DUNKARD FORK,	Greene,	Wheeling Creek,	Main Ohio,	72.4 in Pa.	339
•DUNKARD FORK, NORTH FORK,	Greene,	Dunkard Fork,	Main Ohio,	28.2	340
•DUNKARD FORK, SOUTH FORK,	Greene,	Dunkard Fork,	Main Ohio,	26.4 in Pa.	340
DUNKLE RUN,	Washington,	Brush Run,	Main Ohio,	7.6	
•DUNLAP CREEK,	Fayette,	Monongahela River,	Monongahela,	41.7	341
DUNN RUN,	Warren,	Allegheny River,	Upper Allegheny,	6.8	
•DUNNING CREEK,	Bedford,	Raystown Branch,	Upper Juniata,	198.3	342
•DURHAM CREEK,	Bucks,	Delaware River,	Middle Delaware,	29.6	342
DUTCH FORK,	Washington,	Buffalo Creek,	Main Ohio,	23.6	
DUTCH RUN,	Armstrong,	Plum Creek,	Middle Allegheny,	6.4	
DUTCH RUN,	Cambria,	Beaverdam Run,	Upper West Branch Susquehanna,	4.7	
DUTCH RUN,	Cambria,	North Branch Blacklick Creek,	Lower Allegheny,	8.2	
DUTCH RUN (or KIPPERT RUN),	Jefferson,	Mahoning Creek,	Middle Allegheny,	5.9	
DUTCHMAN RUN,	Beaver,	Ohio River,	Main Ohio,	3.0	
DUTCHMAN RUN,	Juniata,	Cocolamus Creek,	Lower Juniata,	2.9	
DUTCHMAN RUN,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	1.6	
DUTCHMAN RUN,	Warren,	Browns Run,	Upper Allegheny,	8.6	
DWARFS KILL,	Pike,	Raymond Kill,	Upper Delaware,	8.2	
•DYBERRY CREEK,	Wayne,	Lackawaxen River,	Upper Delaware,	71.3	343
DYBERRY CREEK, EAST BRANCH,	Wayne,	Dyberry Creek,	Upper Delaware,	16.9	
•DYBERRY CREEK, WEST BRANCH,	Wayne,	Dyberry Creek,	Upper Delaware,	28.8	344
DYERS FORK,	Greene,	Whiteley Creek,	Monongahela,	9.9	
DYERS RUN,	Schuylkill,	West Branch Schuylkill River,	Lower Delaware,	4.8	
EAGLE RUN,	Jefferson,	Pine Run,	Middle Allegheny,	1.8	
EAGLE RUN,	Luzerne,	Cranberry Creek,	Lower North Branch Susquehanna,	0.9	
EAGLE RUN,	Northumberland,	Shamokin Creek,	Middle Main Susquehanna,	1.5	
EAGLE GAP RUN,	Blair,	Tipton Run,	Upper Juniata,	0.7	
EAKINS RUN,	Indiana,	South Branch Twolick Creek,	Lower Allegheny,	2.9	
EARNEST RUN,	Bedford,	Dunning Creek,	Upper Juniata,	9.7	
EAST BRANCH OR FORK (See name of main stream),					
EAST CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	4.1	
EAST RUN,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	6.3	
EAST RUN,	Luzerne,	Black Creek,	Lower North Branch Susquehanna,	0.6	
EAST (See also significant name).					
EAVENS RUN,	Cambria,	South Branch Blacklick Creek,	Lower Allegheny,	1.6	
ECKLER RUN,	Jefferson,	Beaver Run,	Middle Allegheny,	1.5	
ECKLES RUN,	Lawrence,	Beaver River,	Main Ohio,	3.2	
EDDY CREEK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	5.3	
EDDYLICK RUN,	Center,	Beech Creek,	Middle West Branch Susquehanna,	11.8	
EDWARDS RUN,	Lawrence,	Beaver River,	Main Ohio	3.8	
EGYPT RUN,	Chester,	White Clay Creek,	Lower Delaware,	2.0	
EICHINGER RUN,	York,	Marsh Run,	Lower Main Susquehanna,	0.3	
EIGHTMILE CREEK,	Erie,	Lake Erie,	Erie,	7.0	
EISENHUTH RUN,	Schuylkill,	Mill Creek,	Lower Delaware,	1.5	
ELBOW RUN	Fulton,	Sideling Hill Creek,	Lower Juniata,	5.0	
ELDER BRANCH,	Fulton,	Wooden Bridge Creek,	Lower Juniata,	5.5	
ELDER RUN,	Armstrong,	Kiskiminitas River,	Lower Allegheny,	4.3	
ELDERS RUN,	Indiana,	Conemaugh River,	Lower Allegheny,	2.7	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
ELEVENMILE RUN,	Potter,	Oswayo Creek,	Upper Allegheny,	14.6	
ELIZABETH RUN,	Lebanon,	Little Swatara Creek,	Lower Main Susquehanna,	9.6	
ELK CREEK,	Bedford,	Town Creek,	Potomac,	5.9	
ELK CREEK,	Cambria,	North Branch Blacklick Creek,	Lower Allegheny,	22.9	
*ELK CREEK,	Center,	Pine Creek,	Middle Main Susquehanna,	54.5	344
*ELK CREEK,	Elk,	Clarion River,	Middle Allegheny,	66.8	345
*ELK CREEK,	Erie,	Lake Erie,	Erie,	96.2	345
*ELK CREEK,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	55.2	346
*ELK (BIG) CREEK,	Chester,	Elk River,	Lower Main Susquehanna,	54.2 in Pa.	347
ELK (BIG) CREEK, EAST BRANCH,	Chester,	Big Elk Creek,	Lower Main Susquehanna,	15.6	
ELK (BIG) CREEK, WEST BRANCH,	Chester,	Big Elk Creek,	Lower Main Susquehanna,	10.4	
ELK (LITTLE) CREEK,	Chester,	Elk River,	Lower Main Susquehanna,	12.2 in Pa.	
ELK (LITTLE) CREEK,	Erie,	Elk Creek,	Erie,	19.6	
ELK RIVER,	State of Maryland,	Chesapeake Bay,	Lower Main Susquehanna,	66.4 in Pa.	
ELK RUN,	Armstrong,	Crooked Creek,	Middle Allegheny,	2.0	
ELK RUN,	Cambria,	Conemaugh River,	Lower Allegheny,	2.1	
ELK RUN,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	12.7	
ELK RUN,	Forest,	Spring Creek,	Middle Allegheny,	1.4	
ELK RUN,	Jefferson,	Mahoning Creek,	Middle Allegheny,	12.1	
ELK RUN,	Jefferson,	North Fork Redbank Creek,	Middle Allegheny,	7.2	
ELK RUN,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	3.8	
ELK RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	2.1	
ELK RUN,	Sullivan,	West Branch Fishing Creek,	Lower North Branch Susquehanna,	7.4	
ELK RUN,	Tioga,	Mill Creek,	Upper North Branch Susquehanna	20.1	
ELK RUN,	Tioga,	Pine Creek,	Middle West Branch Susquehanna,	19.6	
ELK RUN,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	23.6	
ELK (LITTLE) RUN,	Jefferson,	Elk Run,	Middle Allegheny,	3.3	
ELK (NORTH) RUN,	Tioga,	Elk Run,	Upper North Branch Susquehanna,	11.9	
ELKHORN CREEK,	Tioga,	Crooked Creek,	Upper North Branch Susquehanna,	10.6	
ELKHORN RUN,	Beaver,	Ohio River,	Main Ohio,	8.6	
ELKHORN RUN,	Clearfield,	Hartshorn Run,	Upper West Branch Susquehanna,	0.5	
ELKHORN RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	4.6	
ELKLICK RUN,	Potter,	Cross Fork,	Middle West Branch Susquehanna,	1.0	
ELKLICK RUN,	Somerset,	Casselman River,	Monongahela,	17.5	
ELKLICK RUN,	Sullivan,	Muncy Creek,	Lower West Branch Susquehanna,	6.3	
ELKLICK RUN,	Tioga,	Mill Creek,	Upper North Branch Susquehanna,	2.4	
ELK ROCK RUN,	Fayette,	Dunbar Creek,	Monongahela,	1.3	
ELLICOTT RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	2.2	
ELLICOTT RUN (or SEVENMILE CREEK)	Erie,	Lake Erie,	Erie,	9.8	
ELLIOTT RUN,	Elk,	Clarion River,	Middle Allegheny,	0.6	
ELLIS CREEK,	Bradford,	Bennett Creek,	Upper North Branch Susquehanna,	2.4	
ELLSWORTH RUN,	Forest,	Coon Creek,	Upper Allegheny,	2.6	
*EMIGH RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	4.7	347
EMMETT RUN,	Forest,	Tubbs Run,	Upper Allegheny,	0.5	
EMPIRE CREEK,	Luzerne,	Buttonwood Creek,	Lower North Branch Susquehanna,	4.2	

ENGLISH RUN,	Lycoming,	Little Pine Creek,	Middle West Branch Susquehanna,	[illegible]	
ENGLISH RUN,	Lycoming,	Little Pine Creek,	Middle West Branch Susquehanna,	6.3	
*ENSLOW FORK,	Greene and Washington,	Wheeling Creek,	Main Ohio,	60.3 in Pa.	348
*EQUINUNK CREEK,	Wayne,	Delaware River,	Upper Delaware,	56.0	349
EQUINUNK CREEK, SOUTH BRANCH,	Wayne,	Equinunk Creek,	Upper Delaware,	7.8	
*EQUINUNK (LITTLE) CREEK,	Wayne,	Delaware River,	Upper Delaware,	25.1	349
ERB RUN,	Snyder,	Middle Creek,	Middle Main Susquehanna,	2.7	
ERLAKILL RUN,	Lebanon,	Little Swatara Creek,	Lower Main Susquehanna,	4.6	
ESHLEMAN RUN,	Lancaster,	Londonland Run,	Lower Main Susquehanna,	2.0	
ESTHER RUN,	Fulton,	Cove Creek,	Potomac,	6.2	
EVENING BRANCH,	Schuylkill,	Fishing Creek,	Lower Main Susquehanna,	6.8	
*EVITTS CREEK,	Bedford,	Potomac River,	Potomac,	80.0 in Pa.	351
FADE'S CREEK,	Luzerne,	Pike Creek,	Lower North Branch Susquehanna,	2.0	
FAIR RUN,	McKean,	Allegheny Portage Creek,	Upper Allegheny,	1.5	
FAIRBANKS RUN,	Warren,	Kiantone Creek,	Upper Allegheny,	5.9	
*FALL BROOK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	13.0	351
FALL BROOK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	10.7	
FALL RUN,	Bradford,	Bentley Creek,	Upper North Branch Susquehanna,	9.4	
FALLEN TIMBER RUN,	Cambria,	Clearfield Creek,	Upper West Branch Susquehanna,	6.3	
FALLEN TIMBER RUN,	Somerset,	Stony Creek,	Lower Allegheny,	2.5	
FALL HOLLOW RUN,	Allegheny,	Turtle Creek,	Monongahela,	2.7	
FALLING BRANCH,	York,	Deer Creek,	Lower Main Susquehanna,	1.4 in Pa.	
FALLING SPRING BRANCH,	Franklin,	Conococheague Creek,	Potomac,	8.3	
FALLING SPRING RUN,	Potter,	Pine Creek,	Middle West Branch Susquehanna,	1.8	
FALLING SPRINGS CREEK,	Luzerne,	Lackawanna River,	Lower North Branch Susquehanna,	1.9	
FALLS CREEK,	Franklin,	Red Run,	Potomac,	5.1	
*FALLS CREEK,	Jefferson,	Sandy Lick Creek,	Middle Allegheny,	23.4	352
FALLS CREEK,	Luzerne,	Black Creek,	Lower North Branch Susquehanna,	2.0	
FALLS CREEK,	Wyoming,	Buttermilk Creek,	Upper North Branch Susquehanna,	8.6	
FALLS RUN,	Cambria,	Solomon Run,	Lower Allegheny,	1.6	
FALLS RUN,	Erie,	Goodban Run,	Erie,	4.9	
FANS RUN (or PAINES RUN),	Fayette,	Jennings Run,	Monongahela,	1.6	
FARNSWORTH BRANCH,	Warren,	Tionesta Creek,	Upper Allegheny,	18.3	
FARREN RUN (or IVY RUN),	Cambria,	Trout Run,	Lower Allegheny,	1.5	
FEDERAL RUN,	Crawford,	Muddy Creek,	Upper Allegheny,	9.4	
FEDERAL RUN, EAST BRANCH,	Crawford,	Federal Run,	Upper Allegheny,	3.2	
FEDERAL RUN, WEST BRANCH,	Crawford,	Federal Run,	Upper Allegheny,	2.4	
FEHLEY RUN,	Jefferson,	Soldier Run,	Middle Allegheny,	2.5	
FEIK RUN,	Fayette,	Little Sandy Creek,	Monongahela,	13.0	
FELLS CREEK,	Lehigh,	Lehigh River,	Middle Delaware,	3.3	
FENTON RUN,	Clearfield,	Biglers Run,	Upper West Branch Susquehanna,	1.8	
FERGUSON BRANCH (or WELLS CREEK),	Somerset,	Stony Creek,	Lower Allegheny,	17.4	
FERGUSON RUN,	Jefferson,	Reits Run,	Middle Allegheny,	1.6	
FERNEY RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	5.4	
FIDDLERS RUN,	Clarion,	Black Fox Run,	Middle Allegheny,	2.1	
FIDDLERS RUN,	Clarion,	Wildcat Run,	Middle Allegheny,	5.4	
FIDLERS RUN,	Northumberland,	Susquehanna River,	Middle Main Susquehanna,	6.9	
FIELD BROOK,	Wyoming,	Tunkhannock Creek,	Upper North Branch Susquehanna,	8.0	
FIELDS RUN,	Center,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	7.3	
FIFE RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	11.0	
FIFTEENMILE CREEK,	Bedford,	Potomac River,	Potomac,	13.9 in Pa.	
FILL (BIG) RUN (or WOOMERS RUN),	Blair,	Bald Eagle Creek,	Upper Juniata,	15.9	
FILLIS RUN,	Jefferson,	Clear Creek,	Middle Allegheny,	1.1	
FINDLAY RUN,	Butler,	South Branch Slippery Rock Creek,	Main Ohio,	5.9	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
FINDLAY RUN,	Cambria,	North Branch Blacklick Creek,	Lower Allegheny,	4 6	
FINDLAY RUN,	Indiana,	Conemaugh River,	Lower Allegheny,	9.9	
FIRST BRANCH OR FORK (See name of main stream).					
FIRST HOLLOW,	Carbon,	Nesquehoning Creek,	Middle Delaware,	1.8	
FIRST RUN,	Lycoming,	First Fork Larry Creek,	Lower West Branch Susquehanna,	3.9	
FISH CREEK,	Crawford,	Conneaut Creek,	Erie,	3.6	
FISH CREEK,	State of West Virginia,	Ohio River,	Main Ohio,	38.5 in Pa.	
*FISH CREEK, PENNSYLVANIA FORK,	Greene,	Fish Creek,	Main Ohio,	36.6 in Pa.	492
FISH CREEK, WEST VIRGINIA FORK,	State of West Virginia,	Fish Creek,	Main Ohio,	1.9 in Pa.	
FISH RUN,	Allegheny,	Pine Creek,	Lower Allegheny,	2.4	
FISH RUN,	Westmoreland,	Linn Run,	Lower Allegheny,	0.7	
FISH DAM RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	12.3	
FISHERS RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	1.4	
FISHERS RUN,	Columbia,	Catawissa Creek,	Lower North Branch Susquehanna,	2.3	
FISHERS RUN,	York,	Yellow Breeches Creek,	Lower Main Susquehanna,	13.1	
FISHING CREEK,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	5.0	
*FISHING CREEK,	Columbia,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	377.7	353
FISHING CREEK,	Dauphin,	Susquehanna River,	Lower Main Susquehanna,	17.6	
FISHING CREEK,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	14.6	
FISHING CREEK,	Perry,	Susquehanna River,	Lower Main Susquehanna,	18.9	
FISHING CREEK,	Potter,	Allegheny River,	Upper Allegheny,	23.7	
FISHING CREEK,	Schuylkill,	Swatara Creek,	Lower Main Susquehanna,	18.5	
FISHING CREEK,	York,	Muddy Creek,	Lower Main Susquehanna,	12.0	
FISHING CREEK,	York,	Susquehanna River,	Lower Main Susquehanna,	18.9	
FISHING CREEK,	York,	Susquehanna River,	Lower Main Susquehanna,	17.8	
FISHING CREEK, EAST BRANCH,	Columbia,	Fishing Creek,	Lower North Branch Susquehanna,	10.8	
FISHING CREEK, EAST BRANCH,	Potter,	Fishing Creek,	Upper Allegheny,	10.5	
FISHING CREEK, EVENING BRANCH,	Schuylkill,	Fishing Creek,	Lower Main Susquehanna,	6.8	
*FISHING CREEK, WEST BRANCH,	Columbia,	Fishing Creek,	Lower North Branch Susquehanna,	33.8	354
FISHING CREEK, WEST BRANCH,	Potter,	Fishing Creek,	Upper Allegheny,	10.6	
FISHING CREEK, WEST BRANCH,	Schuylkill,	Fishing Creek,	Lower Main Susquehanna,	7.6	
*FISHING (BIG) CREEK,	Clinton,	Bald Eagle Creek,	Middle West Branch Susquehanna,	183.6	354
*FISHING (LITTLE) CREEK,	Clinton,	Big Fishing Creek,	Middle West Branch Susquehanna,	47.3	355
*FISHING (LITTLE) CREEK,	Columbia,	Fishing Creek,	Lower North Branch Susquehanna,	65.3	355
FISHING RUN,	Allegheny,	Millers Run,	Main Ohio,	1.9	
FISHING RUN,	Perry,	Sherman Creek,	Lower Main Susquehanna,	10.6	
FISHING RUN,	Somerset,	Laurel Hill Creek,	Monongahela,	3.6	
FISHPOT RUN,	Beaver,	Raccoon Creek,	Main Ohio,	2.1	
FISHPOT RUN,	Washington,	Monongahela River,	Monongahela,	5.3	
FITCH CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	3.0	
FIVEMILE RUN,	Jefferson,	Mill Creek,	Middle Allegheny,	7.8	
FIVEMILE RUN,	Jefferson,	Sandy Lick Creek,	Middle Allegheny,	17.1	
FIVEMILE RUN,	McKean,	Sevenmile Run,	Middle Allegheny,	8.7	

FLAG RUN,	Somerset,	Casselman River,	Monongahela,	1.8
FLAGLER RUN,	Monroe,	Pocono Creek,	Upper Delaware,	4.5
FLANDERS RUN,	Clearfield,	Bennett Branch,	Upper West Branch Susquehanna,	2.2
FLANNIGAN RUN,	Cambria,	Chest Creek,	Upper West Branch Susquehanna,	1.5
FLAT RUN,	Adams,	Toms Creek,	Potomac,	8.9 in Pa.
FLAT RUN,	Armstrong,	Kiskiminitas River,	Lower Allegheny,	2.0
FLAT RUN,	Warren,	Fourmile Run,	Upper Allegheny,	1.4
FLAUGHERTY CREEK,	Somerset,	Casselman River,	Monongahela,	22.4
FLAUGHERTY (LITTLE) CREEK,	Somerset,	Flaugherty Creek,	Monongahela,	3.3
FLAUGHERTY RUN,	Allegheny,	Ohio River,	Main Ohio,	8.9
FLENNERS RUN,	Cambria,	South Fork Little Conemaugh River,	Lower Allegheny,	0.7
FLICK RUN,	Lycoming,	Blockhouse Run,	Middle West Branch Susquehanna,	3.1
FLINTSTONE CREEK,	Bedford,	Town Creek,	Potomac,	18.8 in Pa.
FLOOD WOOD CREEK,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	3.6
FLYNN HOLLOW RUN,	Potter,	Genesee Fork,	Middle West Branch Susquehanna,	0.5
FOGLEY RUN,	Armstrong,	Crooked Creek,	Middle Allegheny,	3.3
FOLK RUN,	Mercer,	French Creek,	Upper Allegheny,	2.0
FOOT RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	3.9
FORCEE RUN,	Clearfield,	Roaring Run,	Upper West Branch Susquehanna,	1.7
FORDYCE RUN,	Greene,	Blockhouse Run,	Monongahela,	2.3
FOREST CREEK,	Schuylkill,	Mill Creek,	Lower Delaware,	1.6
FOREST LAKE CREEK,	Susquehanna,	East Branch Wyalusing Creek,	Upper North Branch Susquehanna,	10.4
FORK RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	1.5
FORK RUN,	Forest,	South Branch Tionesta Creek,	Upper Allegheny,	3.4
FORK RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	5.4
FORT RUN (or GRAFF RUN),	Armstrong,	Allegheny River,	Middle Allegheny,	1.7
FORT RUN,	Huntingdon,	Aughwick Creek,	Lower Juniata,	6.8
FOSTER BROOK,	McKean,	Tuneungwant Creek,	Upper Allegheny,	16.7
FOSTER CREEK,	Fulton,	Little Tonoloway Creek,	Potomac,	3.3
FOSTER RUN,	Fulton,	Sideling Hill Creek,	Lower Juniata,	1.2
FOSTER RUN,	Venango,	Sugar Creek,	Upper Allegheny,	2.2
FOUNDRY RUN,	Armstrong,	Mahoning Creek,	Middle Allegheny,	1.7
FOUNDRY RUN,	Jefferson,	Mahoning Creek,	Middle Allegheny,	3.7
FOURMILE CREEK,	Erie,	Lake Erie,	Erie,	11.4
FOURMILE RUN,	Beaver,	Ohio River,	Main Ohio,	2.2
FOURMILE RUN,	Cameron,	Sinnemahoning Portage,	Upper West Branch Susquehanna,	4.3
FOURMILE RUN,	Fayette,	Dunlap Creek,	Monongahela,	3.2
FOURMILE RUN,	Forest,	Salmon Creek,	Upper Allegheny,	3.6
FOURMILE RUN,	McKean,	Instanter Creek,	Middle Allegheny,	1.9
FOURMILE RUN,	Tioga,	Pine Creek,	Middle West Branch Susquehanna,	5.5
FOURMILE RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	18.2
FOURMILE RUN,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	39.3
FOURMILE RUN,	Westmoreland,	Monastery Run,	Lower Allegheny,	8.8
FOURMILE RUN, SOUTH BRANCH,	Tioga,	Fourmile Run,	Middle West Branch Susquehanna,	1.3
FOURTH GAP,	Union,	White Deer Creek,	Lower West Branch Susquehanna,	0.9
FOUST CREEK,	York,	South Branch Codorus Creek,	Lower Main Susquehanna,	1.7
FOWLER RUN,	Huntingdon,	Beaver Brook,	Upper Juniata,	5.3
FOWLER RUN,	McKean,	Allegheny River,	Upper Allegheny,	3.0
FOWLER RUN,	Schuylkill,	Shenandoah Creek,	Middle Main Susquehanna,	0.3
FOX CREEK,	Bradford,	Wappasening Creek,	Upper North Branch Susquehanna,	6.5
FOX RUN,	Blair and Huntingdon,	Frankstown Branch,	Upper Juniata,	3.2
FOX RUN,	Forest,	Little Coon Creek,	**Upper Allegheny,**	0.9
FOX RUN,	Greene,	Dunkard Creek,	**Monongahela,**	2.4
FOX RUN,	Indiana,	Muddy Run,	**Lower Allegheny,**	0.6

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Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
FOX RUN,	Lycoming,	Muncy Creek,	Lower West Branch Susquehanna,	4.0	
FOX RUN,	York,	Little Conewago Creek,	Lower Main Susquehanna,	12.7	
FOXES RUN,	Delaware,	Darby Creek,	Lower Delaware,	1.7	
FRAMES RUN,	Beaver,	Raccoon Creek,	Main Ohio,	1.0	
*FRANKFORD CREEK,	Philadelphia,	Delaware River,	Lower Delaware,	36.1	356
*FRANKSTOWN BRANCH,	Huntingdon,	Juniata River,	Upper Juniata,	997.8	357
FREE RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	2.2	
FREELING CREEK,	Pike,	Wallenpaupack Creek,	Upper Delaware,	2.6	
*FREEMAN RUN,	Potter,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	33.9	358
FREEMAN RUN, WEST BRANCH,	Potter,	Freeman Run,	Upper West Branch Susquehanna,	11.7	
*FRENCH CREEK,	Chester,	Schuylkill River,	Lower Delaware,	71.0	359
*FRENCH CREEK,	Venango,	Allegheny River,	Upper Allegheny,	1,246.0	359
FRENCH CREEK, SOUTH BRANCH,	Chester,	French Creek,	Lower Delaware,	13.9	
*FRENCH CREEK, SOUTH BRANCH,	Erie,	French Creek,	Upper Allegheny,	86.4	361
*FRENCH CREEK, WEST BRANCH,	Erie,	French Creek;	Upper Allegheny,	74.6	361
FRENCH RUN,	Bedford,	Raystown Branch,	Upper Juniata,	11.9	
FRIENDS CREEK,	Adams,	Toms Creek,	Potomac,	13.5	
FROMAN RUN,	Washington,	Mingo Creek,	Monongahela,	1.9	
FROSTY RUN,	Greene,	Whiteley Creek,	Monongahela,	4.6	
FROZEN RUN,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	4.0	
FRYINGPAN RUN,	Tioga,	Cedar Run,	Middle West Branch Susquehanna,	2.5	
FRYOR RUN,	Clearfield,	Curry Run,	Upper West Branch Susquehanna,	0.7	
FULLER BROOK,	McKean,	West Branch Tunungwant Creek,	Upper Allegheny,	7.1	
FULTON RUN,	Indiana,	Crooked Creek,	Middle Allegheny,	4.3	
FULTON RUN,	Washington,	Burgetts Fork,	Main Ohio,	2.8	
FUNK RUN,	Warren,	West Hickory Creek,	Upper Allegheny,	2.6	
FURNACE CREEK,	Berks,	Little Manatawny Creek,	Lower Delaware,	4.9	
FURNACE CREEK,	Berks,	Spring Creek,	Lower Delaware,	4.4	
FURNACE CREEK,	York,	West Branch Codorus Creek,	Lower Main Susquehanna,	5.0	
FURNACE RUN,	Berks,	Manatawny Creek,	Lower Delaware,	2.6	
FURNACE RUN,	Columbia,	Catawissa Creek,	Lower North Branch Susquehanna,	3.0	
FURNACE RUN,	Fayette,	Youghiogheny River,	Monongahela,	3.4	
FURNACE RUN,	Franklin,	Shirley Run,	Lower Main Susquehanna,	4.1	
FURNACE RUN,	Lancaster,	Middle Creek,	Lower Main Susquehanna,	8.2	
FURNACE RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	2.6	
FURNACE RUN,	Westmoreland,	Laughlintown Run,	Lower Allegheny,	4.6	
FURNACE RUN,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	13.3	
FURNACE RUN,	York,	Sawmill Run,	Lower Main Susquehanna,	3.0	
GABLES RUN,	Lancaster,	West Branch Octoraro Creek,	Lower Main Susquehanna,	2.7	
GADDES RUN,	Bucks,	Tohickon Creek,	Middle Delaware,	4.8	
GAGS HOLLOW,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	0.9	
GALLAGHER RUN (or AYLESWORTH RUN),	Elk,	Elk Creek,	Middle Allegheny,	1.5	
GALLEY RUN,	Fayette,	Youghiogheny River,	Monongahela,	3.3	
GAMBLE RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	11.3	
GAP RUN	Bedford,	Evitts Creek,	Potomac,	8.2 in Pa.	

GAP (BIG) RUN,	Center,	Pine Creek,	Middle Main Susquehanna,	0.8	
GAP (LITTLE) RUN,	Center,	Pine Creek,	Middle Main Susquehanna,	1.5	
GARDNER CREEK,	Lackawanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	16.6	
GARDNERS CREEK,	Luzerne,	Mill Creek,	Lower North Branch Susquehanna,	8.7	
GARLOCK HOLLOW,	McKean,	Kendall Run,	Upper Allegheny,	1.5	
GARNER RUN,	Greene,	McCourtney Run,	Monongahela,	6.0	
GARNER RUN,	Huntingdon,	Shaver Creek,	Upper Juniata,	4.7	
GARRETT RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	8.7	
GARRISON FORK,	Greene,	Pennsylvania Fork Dunkard Creek,	Monongahela,	6.7	
GAT[illegible] RUN,	Clarion,	Piney Creek,	Middle Allegheny,	1.5	
GERHARDS RUN,	Schuylkill,	Middle Creek,	Lower Main Susquehanna,	2.0	
GENERAL PENDLETON CREEK,	Bradford,	Wappasening Creek,	Upper North Branch Susquehanna,	2.0	
•GENESEE FORK,	Potter,	Pine Creek,	Middle West Branch Susquehanna,	33.6	362
•GENESEE RIVER,	Potter,	Lake Ontario,	Genesee,	96.0 in Pa.	362
GENESEE RIVER, MIDDLE BRANCH,	Potter,	Genesee River,	Genesee,	19.3	
GENESEE RIVER, WEST BRANCH,	Potter,	Genesee River,	Genesee,	23.8	
GENSEL RUN,	Columbia,	Catawissa Creek,	Lower North Branch Susquehanna,	0.7	
GENSEMER RUN,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	1.5	
•GEORGE CREEK,	Fayette,	Monongahela River,	Monongahela,	65.7	363
GEORGES CREEK,	Bedford,	Dunning Creek,	Upper Juniata,	13.7	
GEORGES CREEK,	Juniata,	Tuscarora Creek,	Lower Juniata,	11.3	
GEORGES CREEK, WEST BRANCH,	Bedford,	Georges Creek,	Upper Juniata,	3.0	
GEORGES RUN,	Washington,	Chartiers Creek,	Main Ohio,	7.8	
GERMAN RUN,	Forest,	West Hickory Creek,	Upper Allegheny,	1.1	
GERMANIA BRANCH,	Potter	Kettle Creek,	Middle West Branch Susquehanna,	10.0	
GERTYS RUN,	Dauphin	Susquehanna River,	Middle Main Susquehanna,	0.4	
GETTY RUN,	Indiana,	Crooked Creek,	Middle Allegheny,	2.0	
GETTY RUN (or COLBY RUN),	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	6.6	
GIBSON RUN,	Fulton,	Sideling Hill Creek,	Lower Juniata,	9.2	
GILBERT RUN,	McKean,	Marilla Creek,	Upper Allegheny,	3.9	
GILFOYLE RUN,	Forest	Watson Branch,	Middle Allegheny,	3.1	
GILL RUN,	Mercer,	East Branch Wolf Creek,	Main Ohio,	2.6	
GILLANS RUN,	Blair,	Blairs Gap Run,	Upper Juniata,	5.7	
GILLESPIE RUN,	Washington,	Middle Wheeling Creek,	Main Ohio,	0.2 in Pa.	
GILLIS RUN	Mercer,	Booth Run,	Main Ohio,	3.5	
GILMORE RUN,	Warren,	Tidioute Creek,	Upper Allegheny,	1.6	
GILSON RUN,	Warren,	Pine Creek,	Upper Allegheny,	2.9	
GIN BROOK,	Pike,	Rattlesnake Brook,	Upper Delaware,	0.4	
GIRTY RUN,	Allegheny,	Allegheny River,	Lower Allegheny,	13.4	
GIST RUN,	Fayette,	Dunlap Creek,	Monongahela,	8.2	
•GLADE RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	25.7	364
GLADE RUN,	Armstrong,	Mahoning Creek,	Middle Allegheny,	9.4	
•GLADE RUN,	Butler,	Connoquenessing Creek,	Main Ohio,	41.4	364
GLADE RUN,	Butler,	Connoquenessing Creek,	Main Ohio,	4.7	
GLADE RUN,	Butler,	Slippery Rock Creek,	Main Ohio,	7.8	
GLADE RUN,	Clarion,	Piney Creek,	Middle Allegheny,	3.7	
GLADE RUN,	Fayette,	Buffalo Run,	Monongahela,	1.4 in Pa.	
GLADE RUN,	Fayette,	Dunbar Creek,	Monongahela,	10.2	
GLADE RUN,	Greene,	Dunkard Creek,	Monongahela,	1.4	
GLADE RUN,	Greene,	Muddy Creek,	Monongahela,	3.3	
•GLADE RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	9.7	365
GLADE RUN,	McKean,	South Branch Kinzua Creek,	Upper Allegheny,	3.6	
GLADE RUN,	Warren,	Allegheny River,	Upper Allegheny,	6.4	
GLASS CREEK,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	7.6	
GLEN BROOK,	Columbia,	Little Briar Creek,	Lower North Branch Susquehanna,	6.9	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
GLEN RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	1.1	
GLENWHITE RUN,	Blair,	Burgoon Run,	Upper Juniata,	5.1	
GLOBE RUN,	Huntingdon,	Shaver Creek,	Upper Juniata,	4.2	
GOBBLER RUN,	Armstrong,	Crooked Creek,	Middle Allegheny,	4.6	
GOFF RUN,	Lancaster,	Big Beaver Creek,	Lower Main Susquehanna,	2.8	
GOLD MINE RUN,	Lebanon,	Evening Branch,	Lower Main Susquehanna,	1.4	
GOODBAN RUN,	Erie,	Elk Creek,	Erie,	9.3	
GOODS RUN,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	4.4	
*GOOD SPRING CREEK,	Schuylkill,	Swatara Creek,	Lower Main Susquehanna,	14.8	366
GOODWIN HOLLOW,	Tioga,	Crooked Creek,	Upper North Branch Susquehanna,	1.2	
GOOSE RUN,	Indiana,	South Branch Plum Creek,	Middle Allegheny,	2.9	
GOOSE POND RUN,	Monroe,	Brodheads Creek,	Upper Delaware,	7.3	
GORBY RUN,	Washington,	Pike Run,	Monongahela,	4.5	
GORDON RUN,	Jefferson,	Cather Run,	Middle Allegheny,	6.4	
GORDON RUN,	Warren,	Allegheny River,	Upper Allegheny,	6.3	
GOSCHENHOPPEN CREEK,	Montgomery,	West Swamp Creek,	Lower Delaware,	2.6	
GOSS RUN,	Clearfield,	Beaver Run,	Upper West Branch Susquehanna,	3.1	
GOURDHEAD RUN,	Allegheny,	Pine Creek,	Lower Allegheny,	4.1	
GRAFF RUN (or FORT RUN),	Armstrong,	Allegheny River,	Middle Allegheny,	1.7	
GRANVILLE RUN,	Mifflin,	Juniata River,	Lower Juniata,	1.2	
GRAPE RUN,	Luzerne,	Eagle Run,	Lower North Branch Susquehanna,	0.7	
GRASS RUN,	Crawford,	Little Sugar Creek,	Upper Allegheny,	3.2	
GRASS FLAT RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	1.0	
GRASS FLATS RUN,	Clinton,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	3.1	
GRASSY BROOK,	Pike,	Shohola Creek,	Upper Delaware,	1.5	
GRASSY RUN,	Fayette,	Cheat River,	Monongahela,	6.3	
GRASSY ISLAND CREEK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	5.2	
GRAVE CREEK,	Greene,	Ohio River,	Main Ohio,	0.5 in Pa.	
GRAVEL CREEK,	Lackawanna,	Roaring Brook,	Lower North Branch Susquehanna,	0.4	
GRAVEL RUN,	Crawford,	French Creek,	Upper Allegheny,	7.9	
GRAVEL RUN,	Crawford,	Shenango River,	Main Ohio,	10.3	
GRAVEL RUN,	Luzerne,	Black Creek,	Lower North Branch Susquehanna,	0.5	
GRAVEL RUN,	Northumberland,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	6.4	
GRAY RUN,	Cambria,	St. Clair Run,	Lower Allegheny,	1.7	
GRAYS FORK,	Greene,	South Fork Tenmile Creek,	Monongahela,	8.4	
GRAYS RUN,	Indiana,	Blacklick Creek,	Lower Allegheny,	1.9	
GRAYS RUN,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	23.2	
GRAYS RUN,	Somerset,	Laurel Hill Creek,	Monongahela,	7.5	
*GREAT TONOLOWAY CREEK,	Fulton,	Potomac River,	Potomac,	119.5 in Pa.	366
*GREAT TROUGH CREEK,	Huntingdon,	Raystown Branch,	Upper Juniata,	96.8	367
GREELEY CREEK (or BALLARD CREEK),	Pike,	Shohola Creek,	Upper Delaware,	15.0	
GREEN BRANCH,	York,	Susquehanna River,	Lower Main Susquehanna,	1.7	
*GREEN CREEK,	Columbia,	Fishing Creek,	Lower North Branch Susquehanna,	37.2	368
GREEN CREEK,	Delaware,	West Branch Chester Creek,	Lower Delaware,	4.3	
GREEN RUN,	Lackawanna,	Spring Brook,	Lower North Branch Susquehanna,	5.1	
GREENE RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	1.9	

GREENLICK RUN,	Fayette,	Jacobs Creek,	Monongahela,	5.0	
GREGG RUN,	Lycoming,	Muncy Creek,	Lower West Branch Susquehanna,	7.6	
GREGORY RUN,	Huntingdon,	Shaver Creek,	Upper Juniata,	2.3	
GREYS RUN,	Bedford,	Raystown Branch,	Upper Juniata,	8.4	
GRIFFIN CREEK,	Lackawanna,	Leggett Creek,	Lower North Branch Susquehanna,	7.2	
GRIFFIN RUN,	Clearfield,	Moravian Run,	Upper West Branch Susquehanna,	1.5	
GRIM RUN,	Luzerne,	Black Creek,	Lower North Branch Susquehanna,	0.8	
GRIMES RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	2.5	
GROFF CREEK,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	13.4	
GROFF RUN,	Lancaster,	Mill Creek,	Lower Main Susquehanna,	2.8	
GROVE RUN,	Cameron,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	7.1	
GROVE RUN,	Center,	Moshannon Creek,	Upper West Branch Susquehanna,	1.7	
GROVE RUN,	Clinton,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	4.3	
GROVE RUN,	Somerset,	Stony Creek,	Lower Allegheny,	2.8	
GROVE RUN,	Westmoreland,	Linn Run,	Lower Allegheny,	1.3	
GROVES RUN,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	1.6	
GRUNDER RUN,	Warren,	Allegheny River,	Upper Allegheny,	4.9	
GUFFY RUN,	Armstrong,	Kiskiminitas River,	Lower Allegheny,	3.9	
GUITON RUN,	Forest,	Salmon Creek,	Upper Allegheny,	3.1	
GULF BROOK,	Bradford,	Towanda Creek,	Upper North Branch Susquehanna,	2.1	
GULF CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	5.8	
GUM RUN,	Cumberland,	Means Run,	Lower Main Susquehanna,	2.8	
GUM RUN,	Luzerne,	Black Creek,	Lower North Branch Susquehanna,	0.8	
GUMS RUN,	Beaver,	Raccoon Creek,	Main Ohio,	1.5	
GUNNING RUN,	McKean,	South Branch Kinzua Creek,	Upper Allegheny,	0.5	
GUNPOWDER FALLS,	York,	Chesapeake Bay,	Lower Main Susquehanna,	11.4 in Pa.	
GURDY RUN,	Dauphin,	Susquehanna River,	Middle Main Susquehanna,	5.0	
GURNEY RUN,	Venango,	French Creek,	Upper Allegheny,	1.3	
GUYASUTA RUN,	Allegheny,	Allegheny River,	Lower Allegheny,	1.0	
GUYS RUN,	Allegheny,	Deer Creek,	Lower Allegheny,	2.1	
HACKELBENDEN RUN,	Greene,	Dunkard Creek,	Monongahela,	2.1	
HACKENBERRY RUN,	Clearfield,	Wilmer Run,	Upper West Branch Susquehanna,	6.4	
HACKENMAN HOLLOW,	Somerset,	North Fork Bens Creek,	Lower Allegheny,	1.4	
HADEN RUN,	Beaver,	Ohio River,	Main Ohio,	2.2	
HAGERMAN RUN,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	2.6	
•HAGERMAN RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	11.1	368
HAIRY SPRING HOLLOW,	Cumberland,	Yellow Breeches Creek,	Lower Main Susquehanna,	5.5	
HALES RUN,	Clearfield,	Wilmer Run,	Upper West Branch Susquehanna,	3.3	
HALF CROWN RUN,	Allegheny,	North Fork Robinson Run,	Main Ohio,	2.3	
HALF MILE RUN,	McKean,	Sinnemahoning Portage,	Upper West Branch Susquehanna,	4.6	
•HALF MOON RUN,	Huntingdon,	Spruce Creek,	Upper Juniata,	27.9	369
HALL CREEK,	Lackawanna,	Griffin Creek,	Lower North Branch Susquehanna,	1.7	
•HALL RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	11.2	369
HALL RUN,	Fayette,	Youghiogheny River,	Monongahela,	12.9 in Pa.	
HALL RUN,	Venango,	East Sandy Creek,	Upper Allegheny,	12.1	
HALLOWING RUN,	Northumberland,	Susquehanna River,	Middle Main Susquehanna,	7.7	
HALTER CREEK,	Blair,	Plum Creek,	Upper Juniata,	16.2	
HAMESTRING RUN,	Washington,	Short Creek,	Monongahela,	0.6	
HAMILTON RUN,	Greene,	Pennsylvania Fork Fish Creek,	Main Ohio,	2.0	
HAMILTON RUN,	Indiana,	Mahoning Creek,	Middle Allegheny,	3.8	
HAMILTON RUN,	McKean,	Allegheny Portage Creek,	Upper Allegheny,	4.2	
HAMLIN CREEK,	McKean,	East Branch Potato Creek,	Upper Allegheny,	3.3	
HAMLIN CREEK, EAST BRANCH,	McKean,	Hamlin Creek,	Upper Allegheny,	1.8	
•HAMMER CREEK,	Lancaster,	Cocalico Creek,	Lower Main Susquehanna,	25.8	370
HAMMER CREEK, WEST BRANCH,	Lebanon,	Hammer Creek,	Lower Main Susquehanna,	6.1	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
•HAMMERSLEY FORK,	Clinton,	Kettle Creek,	Middle West Branch Susquehanna,	32.4	371
HAMMERSLEY FORK, NELSON BRANCH,	Potter,	Hammersley Fork,	Middle West Branch Susquehanna,	15.2	
•HAMMOND CREEK,	Bradford,	Seely Creek,	Upper North Branch Susquehanna,	26.0 in Pa	371
HAMMOND RUN,	Crawford,	Oil Creek,	Upper Allegheny,	2.8	
HAND BROOK,	McKean,	East Branch Potato Creek,	Upper Allegheny,	1.7	
HANEY RUN,	Fayette,	Youghiogheny River,	Monongahela,	3.0	
HANN RUN,	Mercer,	Shenango River,	Main Ohio,	2.9	
HANROST CREEK,	Schuylkill,	Deep Creek,	Middle Main Susquehanna,	4.3	
HAPPY HOLLOW RUN,	Juniata,	Juniata River,	Lower Juniata,	4.5	
HARBOR (BIG) RUN,	Lycoming,	Second Fork Larry Creek,	Lower West Branch Susquehanna,	0.7	
HARDSCRABBLE HOLLOW RUN,	Potter,	Genesee Fork,	Middle West Branch Susquehanna,	1.8	
HARE CREEK,	Warren,	Brokenstraw Creek,	Upper Allegheny,	22.7	
HARES VALLEY CREEK,	Huntingdon,	Juniata River,	Lower Juniata,	20.4	
HARGUS CREEK,	Greene,	McCourtney Run,	Monongahela,	7.4	
HARMON CREEK,	Washington,	Ohio River,	Main Ohio,	20.4 in Pa	
HARNISH RUN,	Lancaster,	Cocalico Creek,	Lower Main Susquehanna,	4.1	
HARPERS RUN,	Indiana,	Blacklegs Creek,	Lower Allegheny,	2.6	
HARRINGTON HOLLOW,	Tioga,	Pine Creek,	Middle West Branch Susquehanna,	1.7	
HARRIS RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	6.0	
HARRISBURG RUN,	McKean,	Foster Brook,	Upper Allegheny,	4.4	
HART RUN,	Greene,	Mudlick Fork,	Main Ohio,	0.7	
HARTLE HOLLOW RUN,	Potter,	Genesee Fork,	Middle West Branch Susquehanna,	0.2	
HARTLEY CREEK,	Wyoming,	Buttermilk Creek,	Upper North Branch Susquehanna,	6.5	
HARTS CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	5.7	
HARTS RUN,	Armstrong,	Sugar Creek,	Middle Allegheny,	1.9	
HARTS RUN,	Greene,	Pennsylvania Fork Fish Creek,	Main Ohio,	6.7 in Pa.	
HARTSHORN RUN,	Clearfield,	Hogback Run,	Upper West Branch Susquehanna,	2.3	
HARTZ CREEK,	Carbon,	Quakake Creek,	Middle Delaware,	1.0	
•HARVEY CREEK,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	47.8	372
HARVEY RUN,	Delaware,	Brandywine Creek,	Lower Delaware,	3.7	
HARVEYS RUN,	Clinton,	Bald Eagle Creek,	Middle West Branch Susquehanna,	4.4	
HASLETT RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	8.0	
HASSON CREEK,	Lehigh,	Jordan Creek,	Middle Delaware,	7.9	
HATCH RUN,	Warren,	Conewango Creek,	Upper Allegheny,	6.8	
HAVONS BROOK,	McKean,	East Branch Potato Creek,	Upper Allegheny,	4.6	
HAW RUN,	Huntingdon,	Great Trough Creek,	Upper Juniata,	0.5	
HAWK RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	2.4	
•HAY CREEK,	Berks,	Schuylkill River,	Lower Delaware,	22.0	372
HAYCOCK CREEK,	Bucks,	Tohickon Creek,	Middle Delaware,	10.0	
HAYDEN RUN,	Allegheny,	Monongahela River,	Monongahela,	4.6	
HAYES RUN,	Adams,	East Branch Little Antietam Creek,	Potomac,	1.5	
HAYES RUN,	Center,	Beech Creek,	Middle West Branch Susquehanna,	4.5	
HAYMAKERS RUN,	Westmoreland,	Turtle Creek,	Monongahela,	11.2	
HAYNES RUN,	Crawford,	Conneaut Lake Creek,	Upper Allegheny,	2.2	
HAYNON RUN,	Washington,	Dunkle Run,	Main Ohio,	4.3	
HAYS RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	2.2	
HAYSVILLE RUN	Allegheny,	Ohio River	Main Ohio,	0.8	

HAZEL DYKE,	Lebanon,	Quittapahilla Creek,	Lower Main Susquehanna,	9.3		
HAZELBACH CREEK,	Bucks,	East Swamp Creek,	Lower Delaware,	2.4		
HAZLE CREEK,	Carbon,	Black Creek,	Middle Delaware,	18.3		
HAZLETON RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	1.1		
HAZLETT RUN,	Indiana,	Cush Cushion Creek,	Upper West Branch Susquehanna,	2.4		
HEAD BROOK,	McKean,	Marvin Creek,	Upper Allegheny,	1.5		
HEATH RUN,	Clearfield,	Bennett Branch,	Upper West Branch Susquehanna,	1.3		
HECTOR HOLLOW,	Fayette,	Mountain Creek,	Monongahela,	1.4		
HEISE RUN,	Tioga,	Marsh Creek,	Middle West Branch Susquehanna,	2.8		
HEMLOCK CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	2.1		
HEMLOCK CREEK,	Columbia,	Fishing Creek,	Lower North Branch Susquehanna,	15.3		
HEMLOCK CREEK,	Jefferson,	Cather Run,	Middle Allegheny,	8.0		
HEMLOCK CREEK,	Susquehanna,	East Branch Starrucca Creek,	Upper North Branch Susquehanna,	1.8		
•HEMLOCK CREEK,	Venango,	Allegheny River,	Upper Allegheny,	43.8		373
HEMLOCK (WEST) CREEK,	Columbia,	Hemlock Creek,	Lower North Branch Susquehanna,	3.2		
HEMLOCK RUN,	McKean,	Chappel Fork,	Upper Allegheny,	0.8		
HEMLOCK RUN,	Warren,	Allegheny River,	Upper Allegheny,	8.9		
•HENDRICKS RUN,	Westmoreland,	Tub Mill Creek,	Lower Allegheny,	33.4		374
HENNEN RUN,	Greene,	Garrison Fork,	Monongahela,	0.6		
HENRY RUN,	Huntingdon,	Shaver Creek,	Upper Juniata,	2.8		
HENRY LOTT BROOK,	Wyoming,	Mehoopany Creek,	Upper North Branch Susquehanna,	3.1		
HENSTEP RUN,	Union,	Penns Creek,	Middle Main Susquehanna,	0.7		
HERNON RUN,	Delaware,	Ridley Creek,	Lower Delaware,	0.7		
HEROD RUN,	Greene,	Pennsylvania Fork Fish Creek,	Main Ohio,	2.8		
HERSHYS RUN,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	0.2		
HESS RUN,	Indiana,	Broadhead Run,	Middle Allegheny,	1.0		
HETRICK RUN,	Jefferson,	North Fork Redbank Creek,	Middle Allegheny,	5.9		
HETTESHEIMER RUN,	Wyoming,	Bowman Creek,	Upper North Branch Susquehanna,	1.6		
HEWITT RUN,	Greene,	Mudlick Fork,	Main Ohio,	2.3		
HICKLEN RUN,	Center,	Little Moshannon Creek,	Upper West Branch Susquehanna,	2.2		
HICKMAN RUN,	Fayette,	Youghiogheny River,	Monongahela,	2.6		
•HICKORY (EAST) CREEK,	Forest,	Allegheny River,	Upper Allegheny,	59.2		374
HICKORY (EAST) CREEK, MIDDLE BRANCH,	Warren,	East Hickory Creek,	Upper Allegheny,	8.3		
HICKORY (EAST) CREEK, WEST BRANCH	**Warren,**	East Hickory Creek,	Upper Allegheny,	6.8		
HICKORY (LITTLE) CREEK,	**Forest,**	Allegheny River,	Upper Allegheny,	7.3		
HICKORY (WEST) CREEK,	**Forest,**	Allegheny River,	Upper Allegheny,	23.0		
HICKORY (WEST) CREEK, EAST BRANCH,	**Warren,**	West Hickory Creek,	Upper Allegheny,	1.7		
HICKORY (WEST) CREEK, MAIN BRANCH	**Warren,**	West Hickory Creek,	Upper Allegheny,	1.5		
HICKORY RUN,	Carbon,	Lehigh River,	Middle Delaware,	11.5		
HICKORY RUN,	Lawrence,	Mahoning River,	Main Ohio,	24.1		
•HICKS RUN,	Cameron,	Bennett Branch,	Upper West Branch Susquehanna,	28.6		375
HICKS RUN, EAST BRANCH	Elk,	Hicks Run,	Upper West Branch Susquehanna,	15.0		
HIGGINS RUN (or McCONAUGHY RUN),	Somerset,	Quemahoning Creek,	Lower Allegheny,	5.8		
HIGH FALLS CREEK,	Lackawanna,	Gardner Creek,	Upper North Branch Susquehanna,	3.0		
HILES RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	0.9		
HILL RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	1.2		
HILL RUN,	Forest,	Spring Creek,	Middle Allegheny,	2.2		
HILL RUN,	Fulton,	Great Tonoloway Creek,	Potomac	2.2		
HILLARD RUN	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	3.4		
HILLBORN RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	3.3		
HILLER BROOK,	Wyoming,	Mehoopany Creek,	Upper North Branch Susquehanna,	1.3		

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HILLS CREEK,	Tioga,	Crooked Creek,	Upper North Branch Susquehanna,	16.5	
•HILL VALLEY CREEK,	Huntingdon,	Juniata River,	Lower Juniata,	14.4	375
HINCKSTON RUN,	Cambria,	Conemaugh River,	Lower Allegheny,	15.1	
HINMAN CREEK,	Bradford,	Little Wysox Creek,	Upper North Branch Susquehanna,	3.2	
HINSON RUN,	Somerset,	Shade Creek,	Lower Allegheny,	2.4	
HOAGLAND BRANCH,	Sullivan,	Elk Creek,	Lower West Branch Susquehanna,	24.4	
HOAGLAND RUN,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	21.5	
HOBBS RUN,	Greene,	Dunkard Creek,	Monongahela,	0.7	
HOBBS RUN,	Greene,	Shannon Run,	Monongahela,	1.7	
HODGE RUN,	Warren,	Allegheny River,	Upper Allegheny,	9.5	
HODGE RUN, NORTH BRANCH,	Warren,	Hodge Run,	Upper Allegheny,	4.8	
HODGSON RUN,	Chester,	Big Elk Creek,	Lower Main Susquehanna,	6.0	
HOFFER CREEK,	Dauphin,	Conewago Creek,	Lower Main Susquehanna,	5.7	
HOFFMAN RUN,	Elk,	Wilson Run,	Middle Allegheny,	6.3	
HOGBACK RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	4.7	
HOGBACK RUN,	Mercer,	Shenango River,	Main Ohio,	8.7	
HOGE RUN,	Greene,	McCourtney Run,	Monongahela,	1.5	
HOGESTOWN RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	17.0	
HOGUE RUN,	Butler,	Slippery Rock Creek,	Main Ohio,	7.5	
•HOKENDAUQUA CREEK,	Northampton,	Lehigh River,	Middle Delaware,	42.6	376
HOLB RUN,	Lycoming,	Onenshey Run,	Lower West Branch Susquehanna,	0.6	
HOLDEN CREEK,	Tioga,	Cowanesque River,	Upper North Branch Susquehanna,	5.5 in Pa.	
HOLDER RUN,	Armstrong,	Sugar Creek,	Middle Allegheny,	2.9	
HOLEMAN RUN,	Forest,	Allegheny River,	Upper Allegheny,	2.4	
HOLIDAY RUN,	Venango,	Oil Creek,	Upper Allegheny,	1.6	
HOLLAND RUN,	Delaware,	Crum Creek,	Lower Delaware,	0.9	
HOLLENBACH RUN,	Schuylkill,	Good Spring Creek,	Lower Main Susquehanna,	0.6	
HOLLENDER CREEK,	Philadelphia,	Delaware River,	Lower Delaware,	....	
HOLLISTER CREEK,	Wayne,	Delaware River,	Upper Delaware,	9.0	
HOLLOW RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	11.9	
HOLT RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	3.9	
HOLTZ RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	4.3	
HOMERS GAP RUN,	Blair,	Little Juniata River,	Upper Juniata,	7.3	
HONEOYE CREEK,	Potter,	Oswayo Creek,	Upper Allegheny,	59.7	
HONEY CREEK,	Lawrence,	North Fork Little Beaver River,	Main Ohio,	24.4	
HONEY CREEK,	Mifflin,	East Branch Kishacoquillas Creek,	Lower Juniata,	18.0	
HOOPER RUN,	Indiana,	Blacklegs Creek,	Lower Allegheny,	3.5	
HOOVER RUN,	Clinton,	Kettle Creek,	Middle West Branch Susquehanna,	1.3	
HOOVERS RUN,	Greene,	Dunkard Creek,	Monongahela,	11.3	
HOOZER RUN,	Somerset,	Laurel Hill Creek,	Monongahela,	4.7	
HOP BOTTOM CREEK,	Susquehanna,	Martin Creek,	Upper North Branch Susquehanna,	19.6	
HOPKINS RUN,	Greene,	Bates Fork,	Monongahela,	1.3	
HORAM RUN,	Jefferson,	Mill Creek,	Middle Allegheny,	9.6	
HORN BROOK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	4.1	
HORNBECKS CREEK,	Pike,	Delaware River,	Upper Delaware,	9.6	
HORNBY HOLLOW,	Tioga,	Crooked Creek,	Upper North Branch Susquehanna,	2.3	

HORNE RUN,	Washington,	Bane Creek,	Monongahela,	2.2	
HORNING RUN,	Juniata,	Juniata River,	Lower Juniata,	7.1	
HORN SHANTY RUN,	Clearfield,	Montgomery Creek,	Upper West Branch Susquehanna,	2.7	
HORSE CREEK,	Venango,	Allegheny River,	Upper Allegheny,	9.1	
HORSE RUN,	McKean,	Oswayo Creek,	Upper Allegheny,	1.8 in Pa.	
HORSE VALLEY CREEK,	Juniata,	Tuscarora Creek,	Lower Juniata,	17.5	
HORTING RUN,	Perry,	Little Juniata Creek,	Lower Main Susquehanna,	2.0	
•HORTON CREEK,	Wyoming,	Tunkhannock Creek,	Upper North Branch Susquehanna,	17.1	376
HORTON RUN,	Indiana,	Cush Creek,	Upper West Branch Susquehanna,	1.6	
HOSACK RUN,	Adams,	Conococheague Creek,	Potomac,	3.6	
HOSAWANDLE RUN,	Jefferson,	Mill Creek,	Middle Allegheny,	1.3	
HOSENSACK CREEK,	Montgomery,	Perkiomen Creek,	Lower Delaware,	18.2	
HOSENSOCK CREEK,	Schuylkill,	Pine Creek,	Lower Delaware,	3.0	
HOSMER RUN,	Warren,	Crouse Run,	Upper Allegheny,	8.0	
HOTCHINSONS RUN,	Blair,	Little Juniata River,/	Upper Juniata,	3.0	
HOTTENBAUGH RUN,	Lawrence,	Neshannock Creek,	Main Ohio,	13.9	
HOUND RUN,	Lycoming,	Rock Run,	Lower West Branch Susquehanna,	1.3	
HOUSE RUN,	Greene,	McCourtney Run,	Monongahela,	4.5	
HOUSEL RUN,	Northumberland,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	2.3	
HOUSE LOG RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	0.9	
HOUSTON RUN,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	3.7	
HOUSTONS RUN,	Perry,	Sherman Creek,	Lower Main Susquehanna,	15.3	
HOWE RUN (or McDOWELL RUN),	Allegheny,	Bull Creek,	Lower Allegheny,	4.0	
HOWE RUN,	Perry,	Juniata River,	Lower Juniata	3.7	
HOY RUN,	Somerset,	Whites Creek,	Monongahela,	0.5	
HUBBEL RUN,	Erie,	French Creek,	Upper Allegheny,	8.0	
HUBER RUN,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	5.0	
HUBERT RUN,	McKean,	South Branch Kinzua Creek,	Upper Allegheny,	8.6	
HUBIER RUN,	Center,	Pine Creek,	Middle Main Susquehanna,	5.5	
HUGH RUN,	Jefferson,	Mill Creek,	Middle Allegheny,	1.5	
HUGH RUN,	Lycoming,	Texas Run,	Middle West Branch Susquehanna,	6.7	
HUGHEY RUN,	Clearfield,	Biglers Run,	Upper West Branch Susquehanna,	1.2	
HULING RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	10.8	
HULINGS RUN,	Forest,	Maple Creek,	Middle Allegheny,	7.0	
HUMMELS RUN,	Schuylkill,	Little Swatara Creek,	Lower Main Susquehanna,	0.8	
•HUNLOCK CREEK,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	31.3	377
HUNT RUN,	Warren,	West Hickory Creek,	Upper Allegheny,	1.8	
HUNTER RUN,	Carbon,	Lehigh River,	Middle Delaware,	8.2	
HUNTER RUN,	Clearfield,	Wilmer Run,	Upper West Branch Susquehanna,	1.6	
HUNTER RUN,	Delaware,	Crum Creek,	Lower Delaware,	2.0	
HUNTER RUN,	Forest,	Allegheny River,	Upper Allegheny,	3.4	
HUNTER RUN,	Forest,	Spring Creek,	Middle Allegheny,	7.6	
HUNTERS CREEK,	Carbon,	Princess Creek,	Middle Delaware,	9.7	
HUNTERS RUN,	Cumberland,	Mountain Creek,	Lower Main Susquehanna,	5.8	
HUNTERS RUN,	Juniata,	Susquehanna River,	Middle Main Susquehanna,	7.3	
•HUNTINGTON CREEK,	Columbia,	Fishing Creek,	Lower North Branch Susquehanna,	117.9	378
•HUNTS RUN,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	30.1	378
HUNTSVILLE CREEK,	Luzerne,	Toby Creek,	Lower North Branch Susquehanna,	14.8	
HURST RUN,	Westmoreland,	Boyer Run,	Monongahela,	0.7	
HUSBAND RUN,	Venango,	Oil Creek,	Upper Allegheny,	1.1	
HUSKINS RUN,	Armstrong,	Cowanshannock Creek,	Middle Allegheny,	6.3	
HUSTON RUN,	Washington,	Monongahela River,	Monongahela,	0.9	
HUTCHINSON RUN,	Fayette,	Redstone Creek,	Monongahela,	3.4	
•HYNER CREEK,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	25.6	379
•INDIAN CREEK	Fayette,	Youghiogheny River,	Monongahela,	125.7	379

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INDIAN CREEK,	Lehigh,	Hosensack Creek,	Lower Delaware,	4.5	
INDIAN CREEK,	McKean,	Allegheny River,	Upper Allegheny,	5.3	
INDIAN CREEK,	Montgomery,	Northeast Branch Perkiomen Creek,	Lower Delaware,	7.2	
INDIAN CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	1.6	
INDIAN CREEK,	Northampton,	Hokendauqua Creek,	Middle Delaware,	14.2	
INDIAN CREEK,	Philadelphia,	Cobbs Creek,	Lower Delaware,	4.2	
INDIAN CREEK, EAST BRANCH,	Philadelphia,	Indian Creek,	Lower Delaware,	2.2	
INDIAN CREEK, WEST BRANCH,	Philadelphia,	Indian Creek,	Lower Delaware,	1.7	
INDIAN HOLLOW,	Warren,	Conewango Creek,	Upper Allegheny,	0.7	
INDIAN RUN,	Berks,	Hay Creek,	Lower Delaware,	0.8	
INDIAN RUN,	Cambria,	Clearfield Creek,	Upper West Branch Susquehanna,	2.0	
INDIAN RUN,	Carbon,	Hunter Run,	Middle Delaware,	1.4	
INDIAN RUN,	Chester,	East Branch Brandywine Creek,	Lower Delaware,	6.3	
INDIAN RUN,	Chester,	Middle Branch White Clay Creek,	Lower Delaware,	0.8	
INDIAN RUN,	Elk,	East Branch Clarion River,	Middle Allegheny,	2.5	
INDIAN RUN,	Lancaster,	Cocalico Creek,	Lower Main Susquehanna,	12.6	
INDIAN RUN,	Lancaster,	Little Conestoga Creek,	Lower Main Susquehanna,	3.1	
INDIAN RUN,	McKean,	East Branch Potato Creek,	Upper Allegheny,	5.1	
INDIAN RUN,	Mercer,	Neshannock Creek,	Main Ohio,	6.8	
INDIAN RUN,	Potter,	Kettle Creek,	Middle West Branch Susquehanna,	0.6	
INDIAN RUN,	Schuylkill,	Little Schuylkill River,	Lower Delaware,	8.3	
INDIAN RUN,	Schuylkill,	West Branch Schuylkill River,	Lower Delaware,	1.8	
INDIAN CAMP RUN,	Jefferson,	Little Sandy Creek,	Middle Allegheny,	7.0	
INDIAN CAMP RUN,	Lycoming,	Little Muncy Creek,	Lower West Branch Susquehanna,	3.7	
INDIAN CAMP RUN,	Warren,	Brokenstraw Creek,	Upper Allegheny,	2.0	
INDIAN CAMP RUN,	Washington,	Sugarcamp Run,	Main Ohio,	3.0	
INDIAN CAMP RUN,	Westmoreland,	Ninemile Run,	Lower Allegheny,	3.1	
INDIAN CORN CREEK,	Berks,	Schuylkill River,	Lower Delaware,	2.6	
INDIAN GRAVE RUN,	Fulton,	McKee Run,	Potomac,	3.5	
INDIAN HOUSE RUN,	Westmoreland,	Armel Run,	Lower Allegheny,	....	
INGHAMS SPRING CREEK,	Bucks,	Delaware River,	Middle Delaware,	8.2	
INLET RUN,	Crawford,	Conneaut Lake Creek,	Upper Allegheny,	10.5	
INSTANTER CREEK,	Elk,	East Branch Clarion River,	Middle Allegheny,	12.6	
•IRISH CREEK,	Berks,	Schuylkill River,	Lower Delaware,	25.1	380
IRISH RUN,	Clearfield,	Curry Run,	Upper West Branch Susquehanna,	2.6	
IRISH RUN,	Fayette,	Mounts Creek,	Monongahela,	2.8	
IRON RUN,	Clarion,	Clarion River,	Middle Allegheny,	2.3	
IRON RUN,	Elk,	Elk Creek,	Middle Allegheny,	5.3	
IRON RUN,	Forest,	South Branch Tionesta Creek,	Upper Allegheny,	0.8	
IRON RUN,	Lehigh,	Schaefer Run,	Middle Delaware,	11.3	
IRON MINE RUN,	Dauphin,	Swatara Creek,	Lower Main Susquehanna,	7.5	
IRON MINE RUN, SOUTH BRANCH,	Dauphin,	Iron Mine Run,	Lower Main Susquehanna,	2.2	
IRON ORE HOLLOW RUN,	Cameron,	Canoe Run,	Upper West Branch Susquehanna,	0.8	
IRONSTONE CREEK,	Berks,	Manatawny Creek,	Lower Delaware,	14.7	
IRON WORKS CREEK,	Bucks,	Mill Creek,	Middle Delaware,	6.3	
IRVINE RUN,	Warren,	Brokenstraw Creek,	Upper Allegheny,	9.5	

IRWIN RUN,	Elk,	Clarion River,	Middle Allegheny,	3.8	
ISENBERG RUN,	Indiana,	Cush Cushion Creek,	Upper West Branch Susquehanna,	1.0	
*ISER RUN (or TOWNLINE RUN),	Somerset,	Casselman River,	Monongahela,	12.9	381
ISLAND BRANCH,	York,	Deer Creek,	Lower Main Susquehanna,	0.3 in Pa.	
ISLAND RUN,	Beaver,	Little Beaver River	Main Ohio,	2.2	
ISLAND RUN,	Elk,	Clarion River,	Middle Allegheny,	6.0	
ITHAN CREEK,	Delaware,	Darby Creek,	Lower Delaware,	7.5	
IVY RUN (or FARREN RUN),	Cambria,	Trout Run,	Lower Allegheny,	1.5	
JACK RUN,	Allegheny,	Ohio River,	Main Ohio,	2.3	
JACK RUN,	Clarion,	Leatherwood Creek,	Middle Allegheny,	3.3	
*JACKS CREEK,	Mifflin,	Juniata River,	Lower Juniata,	56.8	381
JACKS RUN,	Allegheny,	Long Run,	Monongahela,	4.4	
*JACKS RUN,	Westmoreland,	Sewickley Creek,	Monongahela,	29.0	382
JACKSON CREEK,	Berks,	Little Northkill Creek,	Lower Delaware,	1.8	
JACKSON RUN,	Crawford,	Randolph Run,	Main Ohio,	2.4	
JACKSON RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	1.0	
JACKSON RUN,	Jefferson,	Mahoning Creek,	Middle Allegheny,	3.0	
JACKSON RUN,	Lancaster,	Conowingo Creek,	Lower Main Susquehanna,	1.7	
JACKSON RUN,	Warren,	Ackley Run,	Upper Allegheny,	10.3	
*JACKSON RUN,	Warren,	Conewango Creek,	Upper Allegheny,	31.0	382
JACOB RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	4.9	
JACOBS CREEK,	Fayette,	Monongahela River,	Monongahela,	7.8	
*JACOBS CREEK,	Fayette and Westmoreland.	Youghiogheny River	Monongahela,	94.9	383
JACOBY CREEK,	Northampton,	Delaware River,	Upper Delaware,	5.6	
JAKE RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	1.4	
JAMES CREEK,	Huntingdon,	Sarah Creek,	Upper Juniata,	11.0	
JAMES RUN,	Cambria,	Stewart Run,	Lower Allegheny,	1.3	
JAMES RUN,	Carbon,	Nesquehoning Creek,	Middle Delaware,	3.9	
JAMES RUN,	Forest,	Hemlock Creek,	Upper Allegheny,	2.9	
JAMISON RUN,	Forest,	Allegheny River,	Upper Allegheny,	2.5	
JAMISON RUN,	Lawrence,	Slippery Rock Creek,	Main Ohio,	12.2	
JAMISON RUN,	Potter,	East Fork First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	4.5	
JAPLING RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	3.2	
JAYSON RUN,	Forest,	West Hickory Creek,	Upper Allegheny,	1.1	
JEMASON CREEK,	Tioga,	Cowanesque River,	Upper North Branch Susquehanna,	16.9	
JENKINS RUN,	Lawrence,	Beaver River,	Main Ohio,	5.9	
JENNINGS RUN,	Fayette,	Redstone Creek,	Monongahela,	10.3	
JENNINGS RUN,	Somerset,	Wills Creek,	Potomac,	8.1 in Pa.	
JEROME CREEK,	Bradford,	Johnson Creek,	Upper North Branch Susquehanna,	4.1	
JERRY RUN,	Clearfield,	Lick Run,	Upper West Branch Susquehanna,	1.6	
JERRY RUN,	Clinton,	Queens Run,	Middle West Branch Susquehanna,	2.5	
JERRY (UPPER) RUN,	Cameron,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	8.9	
JEWS RUN,	Clinton,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	1.3	
JIMMY RUN,	Jefferson,	Mill Creek,	Middle Allegheny,	2.9	
JOB CREEK,	Greene,	North Fork Dunkard Fork,	Main Ohio,	9.2	
JOE RUN,	Lycoming,	Second Fork Larry Creek,	Lower West Branch Susquehanna,	1.5	
JOHNNY RUN,	Warren,	Conewango Creek,	Upper Allegheny,	3.6	
JOHNS RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	3.1	
JOHNSON BROOK,	Potter,	Pine Creek,	Middle West Branch Susquehanna,	5.5	
*JOHNSON CREEK,	Bradford,	Wysox Creek,	Upper North Branch Susquehanna,	27.1	384
JOHNSON CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	15.0	
JOHNSON CREEK,	Wayne,	West Branch Lackawaxen River,	Upper Delaware,	19.6	
*JOHNSON RUN,	Clinton,	West Branch Susquehanna River	Middle West Branch Susquehanna,	3.3	

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JOHNSON RUN,	Elk,	East Branch Clarion River,	Middle Allegheny,	10.9	
JOHNSON RUN,	Elk,	Little Toby Creek,	Middle Allegheny,	3.9	
JOHNSON RUN,	Northumberland,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	8.9	
JOHNSON RUN,	Venango,	Allegheny River,	Upper Allegheny,	0.3	
JOHNSON HOLLOW RUN,	Potter,	Pine Creek,	Middle West Branch Susquehanna,	1.0	
JOKE RUN,	Clearfield,	Roaring Run,	Upper West Branch Susquehanna,	1.5	
JONATHAN RUN,	Fayette,	Youghiogheny River,	Monongahela,	6.1	
JONES CREEK,	Wayne,	West Branch Wallenpaupack Creek,	Upper Delaware,	23.9	
JONES RUN,	Clarion,	Douglass Run,	Middle Allegheny,	3.0	
JONES RUN,	Fulton,	Sindeldecker Run,	Potomac,	0.3	
JONES RUN,	Somerset,	Laurel Hill Creek,	Monongahela,	7.1	
•JORDAN CREEK,	Lehigh,	Little Lehigh Creek,	Middle Delaware,	81.0	384
JORDAN RUN,	Beaver,	North Fork Little Beaver River,	Main Ohio,	3.5	
JORDAN RUN,	Fulton,	Esther Run,	Potomac	0.8	
JORDAN RUN,	Potter,	East Fork First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	1.5	
JUDSON HOLLOW RUN,	Potter,	Genesee Fork,	Middle West Branch Susquehanna,	2.2	
JUDY RUN,	Forest,	Coon Creek,	Upper Allegheny,	3.8	
JUG HANDLE RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	1.7	
•JUNIATA (LITTLE) CREEK,	Perry,	Susquehanna River,	Lower Main Susquehanna,	30.8	385
•JUNIATA RIVER,	Perry,	Susquehanna River,	Susquehanna,	3,426.0	386
•JUNIATA RIVER, FRANKSTOWN BRANCH,	Huntingdon,	Juniata River,	Upper Juniata,	997.8	357
•JUNIATA RIVER, RAYSTOWN BRANCH,	Huntingdon,	Juniata River,	Upper Juniata,	1,012.1	522
•JUNIATA (LITTLE) RIVER,	Huntingdon,	Frankstown Branch,	Upper Juniata,	248.9	387
"K" FORK,	Elk,	West Creek,	Upper West Branch Susquehanna,	5.1	
KANE RUN,	Cambria,	Trout Run,	Lower Allegheny,	3.1	
KARL RUN,	Union,	Penns Creek,	Middle Main Susquehanna,	1.3	
KASKA-WILLIAM CREEK,	Schuylkill,	Schuylkill River,	Lower Delaware,	2.7	
KASSON BROOK,	Wyoming,	Mehoopany Creek,	Upper North Branch Susquehanna,	5.0	
KAUFFMAN RUN,	Schuylkill,	Mud Run,	Lower Delaware,	0.9	
KAUFMAN RUN (or LITTLE BREAKNECK CREEK),	Butler,	Breakneck Creek,	Main Ohio,	7.0	
KAUFMAN RUN,	Somerset,	Stony Creek,	Lower Allegheny,	1.6	
•KEASEY RUN,	Franklin,	Conodoguinet Creek,	Lower Main Susquehanna,	36.2	388
KEEFERS RUN,	Dauphin,	Wiconisco Creek,	Middle Main Susquehanna,	2.0	
KEELER CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	1.7	
KEG RUN,	Bedford,	Shawnee Branch,	Upper Juniata,	12.1	
KEHLEY RUN,	Schuylkill,	Shenandoah Creek,	Middle Main Susquehanna,	1.0	
KELLER RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	1.1	
KELLEY RUN,	Clarion,	Paint Creek,	Middle Allegheny,	3.2	
KELLOCK RUN,	Dauphin,	Swatara Creek,	Lower Main Susquehanna,	4.7	
KELLUM CREEK,	Lackawanna,	Roaring Brook,	Lower North Branch Susquehanna,	2.6	
KELLY RUN,	Allegheny,	Monongahela River,	Monongahela,	2.2	
KELLY RUN,	Crawford,	Muddy Creek,	Upper Allegheny,	9.2	
KELLY RUN,	Fayette,	Monongahela River,	Monongahela,	1.3	
KELLYS RUN,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	1.9	

KEMPS RUN,	Berks,	Mill Creek,	Lower Delaware,	1.0	
KENDALL RUN,	McKean,	Tuneungwant Creek,	Upper Allegheny,	16.6	
KENNEDY CREEK,	Lackawanna,	South Branch Tunkhannock Creek,	Upper North Branch Susquehanna,	5.6	
KENNEDY RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	0.7	
KENNELL MILL RUN,	Bedford,	Wills Creek,	Potomac,	21.4	
KENT RUN,	Greene,	North Fork Dunkard Fork,	Main Ohio,	2.6	
KENTS RUN,	Mercer,	Otter Creek,	Main Ohio,	1.8	
KERN RUN,	Snyder,	Middle Creek,	Middle Main Susquehanna,	10.6	
KERR RUN (or CARR RUN),	Indiana,	Mahoning Creek,	Middle Allegheny,	3.3	
•KERSEY RUN,	Elk,	Bennett Branch,	Upper West Branch Susquehanna,	27.1	389
KERSEY RUN, WEST BRANCH,	Elk,	Kersey Run,	Upper West Branch Susquehanna,	13.0	
KETCHUM RUN,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	2.8	
KETTLE CREEK,	Blair,	Little Juniata River,	Upper Juniata,	3.8	
•KETTLE CREEK,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna.	239.5	389
KETTLE CREEK,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	13.3	
KETTLE (LITTLE) CREEK,	Potter,	Kettle Creek,	Middle West Branch Susquehanna,	22.8	
KETTLE RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	0.6	
KEYS RUN,	Forest,	Hemlock Creek,	Upper Allegheny,	5.5	
KIANTONE CREEK,	Warren,	Conewango Creek,	Upper Allegheny,	18.5 in Pa.	
KIBLER RUN,	Cambria,	Dutch Run,	Upper West Branch Susquehanna,	1.4	
KILLAM CREEK,	Pike,	Wallenpaupack Creek,	Upper Delaware,	3.9	
KILLBUCK RUN,	Allegheny,	Ohio River,	Main Ohio,	5.3	
KILLBUCK RUN,	Cambria,	Beaverdam Run,	Upper West Branch Susquehanna,	7.8	
KILLINGER CREEK,	Lebanon,	Quittapahilla Creek,	Lower Main Susquehanna,	14.1	
KIMBERLIN RUN,	Somerset,	Coxe Creek,	Monongahela,	9.3	
KIMBERS RUN,	Bedford,	Raystown Branch,	Upper Juniata,	9.0	
KING BRANCH,	Erie,	Little Elk Creek,	Erie,	1.7	
KING RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	2.6	
KING RUN,	McKean,	Oswayo Creek,	Upper Allegheny,	7.9	
KINGS CREEK,	Sullivan,	Elk Creek,	Lower West Branch Susquehanna,	7.4	
•KINGS CREEK,	Washington,	Ohio River,	Main Ohio,	30.7 in Pa.	390
KINGS CREEK, AUNT CLARA FORK,	Washington,	Kings Creek,	Main Ohio,	13.0 in Pa.	
KINGS CREEK, NORTH FORK,	Beaver,	Kings Creek,	Main Ohio,	7.3 in Pa.	
KINGS RUN,	Clearfield,	Chest Creek,	Upper West Branch Susquehanna,	1.8	
KINGS RUN,	Lancaster,	West Branch Octoraro Creek,	Lower Main Susquehanna,	1.3	
KINGSLEY RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	1.4	
•KINZUA CREEK,	Warren,	Allegheny River,	Upper Allegheny,	181.8	391
•KINZUA CREEK, SOUTH BRANCH,	McKean,	Kinzua Creek,	Upper Allegheny,	38.0	391
KIPPERT RUN (or DUTCH RUN),	Jefferson,	Mahoning Creek,	Middle Allegheny,	5.9	
KIRKPATRICK RUN,	Jefferson,	Fivemile Run,	Middle Allegheny,	5.2	
•KISHACOQUILLAS CREEK,	Mifflin,	Juniata River,	Lower Juniata,	194.9	392
•KISHACOQUILLAS CREEK, EAST BRANCH (or LANCASTER CREEK).	Mifflin,	Kishacoquillas Creek,	Lower Juniata,	108.0	393
•KISHACOQUILLAS CREEK, WEST BRANCH,	Mifflin,	Kishacoquillas Creek,	Lower Juniata,	61.1	393
•KISKIMINITAS RIVER,	Armstrong and Westmoreland,	Allegheny River,	Lower Allegheny,	1,891.5	394
•KITCHEN CREEK,	Luzerne,	Huntington Creek,	Lower North Branch Susquehanna,	24.5	396
KITTANNING RUN,	Blair,	Burgoon Run,	Upper Juniata,	2.5	
KLEINGINNEY CREEK,	Berks,	Wyomissing Creek,	Lower Delaware,	1.8	
•KNAPP CREEK,	McKean,	Allegheny River,	Upper Allegheny,	28.4	396
KNAPP RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	1.8	
KNAPP RUN,	Jefferson,	Redbank Creek,	Middle Allegheny,	1.7	
KNIGHT RUN,	Chester,	East Branch Octoraro Creek,	Lower Main Susquehanna,	9.0	
KNOB RUN,	Greene,	Pennsylvania Fork Fish Creek	Main Ohio,	2.5 in Pa.	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
KOENIGS CREEK,	Schuylkill,	Little Schuylkill River,	Lower Delaware,	3.8	
KRAMER RUN,	Perry,	Raccoon Creek,	Lower Juniata,	1.1	
KREPP GAP RUN,	Snyder,	Middle Creek,	Middle Main Susquehanna,	2.8	
•KREUTZ CREEK,	York,	Susquehanna River,	Lower Main Susquehanna,	34.4	337
KURTZ RUN,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	2.4	
KYLE RUN,	Jefferson,	Little Mill Creek,	Middle Allegheny,	1.1	
•LACKAWANNA RIVER,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	346.3	398
•LACKAWANNA RIVER, EAST BRANCH,	Susquehanna,	Lackawanna River,	Lower North Branch Susquehanna,	17.6	399
•LACKAWANNA RIVER, WEST BRANCH,	Susquehanna,	Lackawanna River,	Lower North Branch Susquehanna,	19.4	400
LACKAWANNOCK CREEK,	Mercer,	Shenango River,	Main Ohio,	8.9	
•LACKAWAXEN RIVER,	Pike,	Delaware River,	Upper Delaware,	602.8	400
•LACKAWAXEN RIVER, WEST BRANCH,	Wayne,	Lackawaxen River,	Upper Delaware,	62.3	401
LADLEY RUN,	Washington,	Middle Wheeling Creek,	Main Ohio,	2.5 in Pa.	
LAHASKA CREEK,	Bucks,	Mill Creek,	Middle Delaware,	7.0	
•LAKE CREEK,	Venango,	Sugar Creek,	Upper Allegheny,	37.8	402
LAKE (EAST) CREEK,	Susquehanna	Saltlick Creek,	Upper North Branch Susquehanna,	2.8	
LAKE RUN,	Allegheny,	Thompson Run,	Monongahela,	1.8	
LAKE RUN,	Lycoming,	Lick Run,	Lower West Branch Susquehanna,	1.7	
LAKE STREAM,	Susquehanna,	East Branch Wyalusing Creek,	Upper North Branch Susquehanna,	13.0	
LAMB RUN,	Venango,	Allegheny River,	Upper Allegheny,	0.8	
LAMBERTS RUN,	Somerset,	Stony Creek,	Lower Allegheny,	3.9	
LAMBLICK RUN,	Fayette,	Monongahela River,	Monongahela,	1.1	
LAMBS CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	7.1	
LAMENTATION RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	3.9	
LAMSON RUN,	Erie,	Elk Creek,	Erie,	6.7	
•LANCASTER CREEK (or EAST BRANCH KISHACOQUILLAS CREEK),	Mifflin,	Kishacoquillas Creek,	Lower Juniata,	108.0	393
LAND CREEK,	Philadelphia,	Schuylkill River,	Lower Delaware,	....	
LANDIS BROOK,	Montgomery,	Perkiomen Creek,	Lower Delaware,	5.3	
LANDIS RUN,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	4.2	
LANGEN BROOK (or CREAMERY BROOK)	Lackawanna,	Roaring Brook,	Lower North Branch Susquehanna,	2.3	
LANGFORD RUN,	Delaware,	Darby Creek,	Lower Delaware,	1.5	
•LANNINGER CREEK,	Potter,	Allegheny River,	Upper Allegheny,	4.0	403
LANZ RUN,	Greene,	Whiteley Creek,	Monongahela,	3.9	
LARGE RUN,	McKean,	West Clarion Creek,	Middle Allegheny,	2.2	
•LARRY CREEK,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	78.8	403
LARRY CREEK, FIRST FORK,	Lycoming,	Larry Creek,	Lower West Branch Susquehanna,	13.4	
LARRY CREEK, SECOND FORK,	Lycoming,	Larry Creek,	Lower West Branch Susquehanna,	20.1	
LATE RUN,	Columbia,	Little Fishing Creek,	Lower North Branch Susquehanna,	5.2	
LA TOUCHE CREEK,	Lackawanna,	Roaring Brook,	Lower North Branch Susquehanna,	1.4	
LATSHAW RUN,	Clarion	Allegheny River,	Middle Allegheny,	1.6	
LATTA RUN,	Fayette,	Greenlick Run,	Monongahela,	2.3	
LATTIMORE CREEK,	Adams,	Bermudian Creek,	Lower Main Susquehanna,	22.5	
LAUBACHS CREEK,	Northampton,	Saucon Creek,	Middle Delaware,	2.6	
LAUDENSLAGER CREEK,	Snyder,	Penns Creek,	Middle Main Susquehanna,	0.9	
LAUGHLINTOWN RUN,	Westmoreland	Loyalhanna Creek,	Lower Allegheny,	12.1	

LAURA RUN,	Huntingdon,	Great Trough Creek,	Upper Juniata,	2.5	
*LAUREL CREEK,	Mifflin,	East Branch Kishacoquillas Creek,	Lower Juniata,	26.4	404
LAUREL FORK,	Clinton,	Young Womans Creek,	Middle West Branch Susquehanna,	4.8	
LAUREL RUN,	Armstrong,	South Fork Pine Creek,	Middle Allegheny,	0.6	
LAUREL RUN,	Bedford,	Little Wills Creek,	Potomac,	1.2	
LAUREL RUN,	Berks,	Schuylkill River,	Lower Delaware,	8.5	
LAUREL RUN,	Blair,	Bald Eagle Creek,	Upper Juniata,	10.2	
LAUREL RUN,	Cambria,	Conemaugh River,	Lower Allegheny,	13.9	
LAUREL RUN,	Cambria,	Little Conemaugh River,	Lower Allegheny,	5.7	
LAUREL RUN,	Cambria,	South Fork Little Conemaugh River,	Lower Allegheny,	9.5	
LAUREL RUN,	Cambria,	South Fork Little Conemaugh River,	Lower Allegheny,	0.7	
LAUREL RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	9.5	
LAUREL RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	8.3	
LAUREL RUN,	Center,	Sinking Creek,	Middle Main Susquehanna,	4.7	
LAUREL RUN,	Clearfield,	Little Clearfield Creek,	Upper West Branch Susquehanna,	1.9	
LAUREL RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	19.5	
LAUREL RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	2.6	
LAUREL RUN,	Clinton,	Bald Eagle Creek,	Middle West Branch Susquehanna,	4.6	
LAUREL RUN,	Dauphin,	Susquehanna River,	Lower Main Susquehanna,	4.0	
*LAUREL RUN,	Elk,	Bennett Branch,	Upper West Branch Susquehanna,	36.4	406
LAUREL RUN,	Elk,	Elk Creek,	Middle Allegheny,	7.9	
LAUREL RUN,	Elk,	Little Toby Creek,	Middle Allegheny,	8.5	
LAUREL RUN,	Fayette,	Big Sandy Creek,	Monongahela,	3.8 in Pa.	
LAUREL RUN,	Fayette,	Gist Run,	Monongahela,	1.0	
LAUREL RUN,	Fayette,	Quebec Run,	Monongahela,	10.9	
LAUREL RUN,	Fayette,	Youghiogheny River,	Monongahela,	8.8	
LAUREL RUN,	Fayette,	Youghiogheny River,	Monongahela,	5.4	
LAUREL RUN,	Fayette,	Youghiogheny River,	Monongahela,	2.1	
LAUREL RUN,	Greene,	Pennsylvania Fork Fish Creek,	Main Ohio,	2.0	
LAUREL RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	5.2	
LAUREL RUN,	Huntingdon,	Standing Stone Creek,	Upper Juniata,	14.5	
LAUREL RUN,	Indiana,	Yellow Creek,	Lower Allegheny,	5.0	
LAUREL RUN,	Indiana,	Yellow Creek,	Lower Allegheny,	3.2	
LAUREL RUN,	Jefferson,	Big Run,	Middle Allegheny,	2.8	
LAUREL RUN,	Jefferson,	East Branch Mahoning Creek,	Middle Allegheny,	6.1	
LAUREL RUN,	Jefferson,	Little Mill Creek,	Middle Allegheny,	3.6	
LAUREL RUN,	Juniata,	Lost Creek,	Lower Juniata	4.8	
LAUREL RUN,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	1.9	
LAUREL RUN,	Luzerne,	Mill Creek,	Lower North Branch Susquehanna,	12.0	
LAUREL RUN,	Lycoming,	Little Muncy Creek,	Lower West Branch Susquehanna,	12.6	
LAUREL RUN,	Lycoming,	Muncy Creek,	Lower West Branch Susquehanna,	5.9	
LAUREL RUN,	Monroe,	Brodheads Creek,	Upper Delaware,	2.5	
*LAUREL RUN,	Perry,	Sherman Creek,	Lower Main Susquehanna,	35.6	405
LAUREL RUN,	Potter,	Phoenix Run,	Middle West Branch Susquehanna,	1.6	
LAUREL RUN,	Somerset,	Dark Shade Creek,	Lower Allegheny,	10.0	
LAUREL RUN,	Somerset,	Iser Run,	Monongahela,	6.5	
LAUREL RUN,	Somerset,	Whites Creek,	Monongahela,	1.0	
LAUREL RUN,	Somerset,	Wills Creek,	Potomac,	9.1	
LAUREL RUN,	Union,	Penns Creek,	Middle Main Susquehanna,	16.0	
LAUREL RUN (or BALDWIN RUN),	Westmoreland,	Conemaugh River,	Lower Allegheny,	9.6	
LAUREL RUN,	York,	Conewago Creek,	Lower Main Susquehanna,	4.1	
LAUREL (LITTLE) RUN,	Cambria,	Clearfield Creek,	Upper West Branch Susquehanna,	2.7	
LAUREL (LITTLE) RUN,	Clearfield,	Laurel Run,	Upper West Branch Susquehanna,	9.5	
*LAUREL HILL CREEK,	[illegible]	Casselman River,	Monongahela,	136.0	406
LAUREL LICK RUN,	ambria,	Chest Creek,	Upper West Branch Susquehanna	9.4	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
LAUREL SWAMP BROOK,	Pike,	Vandermark Creek,	Upper Delaware,	0.6	
LAWRENCE RUN,	Beaver,	North Fork Kings Creek,	Main Ohio,	2.5	
LEACH CREEK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	8.6	
LEAF CREEK,	Berks,	Schuylkill River,	Lower Delaware,	2.0	
LEAS RUN,	Monroe,	Brodheads Creek,	Upper Delaware,	2.1	
LEASURE RUN,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	2.5	
LEASURE RUN,	Indiana,	South Branch Plum Creek,	Middle Allegheny,	3.0	
LEATHERWOOD CREEK,	Clarion,	Redbank Creek,	Middle Allegheny,	21.2	
LEATHERWOOD CREEK, WEST FORK,	Clarion,	Leatherwood Creek,	Middle Allegheny,	3.7	
•LEBOEUF CREEK,	Erie,	French Creek,	Upper Allegheny,	61.7	406
LEBOEUF CREEK, EAST BRANCH,	Erie,	Leboeuf Creek,	Upper Allegheny,	23.8	
LEECH RUN,	Chester,	East Branch Octoraro Creek,	Lower Main Susquehanna,	5.4	
LEES CREEK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	0.6	
LEFT BRANCH (See name of main stream)					
LEGGETT CREEK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	17.9	
•LEHIGH (LITTLE) CREEK,	Lehigh,	Lehigh River,	Middle Delaware,	187.6	407
•LEHIGH RIVER,	Northampton,	Delaware River,	Middle Delaware,	1,373.1	408
LEHMAN RUN,	Franklin,	Keasey Run,	Lower Main Susquehanna,	4.4	
LEISURE RUN,	Clarion,	Redbank Creek,	Middle Allegheny,	6.5	
LENHART RUN,	Warren,	Allegheny River,	Upper Allegheny,	2.3	
LENT BROOK,	Potter,	Allegheny River,	Upper Allegheny,	4.4	
LEONARD CREEK,	Wyoming,	Bowman Creek,	Upper North Branch Susquehanna,	17.6	
LEONARD RUN,	Clearfield,	Lick Run,	Upper West Branch Susquehanna,	1.2	
LEONARD HOLLOW CREEK,	Bradford,	Sugar Creek,	Upper North Branch Susquehanna,	17.7	
LESLIE RUN,	Cambria,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	1.0	
LETORT SPRING RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	23.4	
LEVEL BRANCH,	Sullivan,	Lick Creek,	Lower West Branch Susquehanna,	6.8	
LEVERS BRANCH,	Monroe,	Brodheads Creek,	Upper Delaware,	6.8	
LEWIS CREEK,	Sullivan,	Muncy Creek,	Lower West Branch Susquehanna,	14.5	
LEWIS CREEK,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	3.0	
LEWIS HOLLOW,	McKean,	Lewis Run,	Upper Allegheny,	1.0	
LEWIS RUN,	Allegheny,	Peters Creek,	Monongahela,	5.8	
LEWIS RUN,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	2.1	
LEWIS RUN,	McKean,	East Branch Tunungwant Creek,	Upper Allegheny,	13.8	
LICK BRANCH,	Fulton,	Wooden Bridge Creek,	Lower Juniata,	4.0	
LICK BRANCH,	Luzerne,	Huntington Creek,	Lower North Branch Susquehanna,	2.8	
•LICK CREEK,	Sullivan,	Little Loyalsock Creek,	Lower West Branch Susquehanna,	24.8	410
LICK CREEK,	Sullivan,	Little Loyalsock Creek,	Lower West Branch Susquehanna,	8.4	
LICK RUN,	Allegheny,	Peters Creek,	Monongahela,	8.4	
LICK RUN,	Cambria,	South Fork Little Conemaugh River,	Lower Allegheny,	1.3	
•LICK RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	12.9	410
•LICK RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	20.9	411
•LICK RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	40.6	411
LICK RUN,	Columbia,	Little Fishing Creek,	Lower North Branch Susquehanna,	5.7	
LICK RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	4.6	
LICK RUN,	Fayette,	Redstone Creek,	Monongahela,	6.3	

LICK RUN,	Fulton,	Great Tonoloway Creek,	Potomac,	2.2	
LICK RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	2.5	
LICK RUN,	Huntingdon,	Aughwick Creek,	Lower Juniata,	3.3	
LICK RUN,	Huntingdon,	Great Trough Creek,	Upper Juniata,	1.3	
LICK RUN,	Jefferson,	Little Sandy Creek,	Middle Allegheny,	3.3	
LICK RUN,	Lycoming,	Little Pine Creek,	Middle West Branch Susquehanna,	4.7	
LICK RUN,	Lycoming,	Muncy Creek,	Lower West Branch Susquehanna,	5.4	
LICK RUN,	Lycoming,	West Mill Creek,	Lower West Branch Susquehanna,	3.0	
LICK RUN,	McKean,	South Fork West Branch Potato Creek,	Upper Allegheny,	0.5	
LICK RUN,	Mercer,	Shenango River,	Main Ohio,	1.0	
LICK RUN,	Somerset,	Laurel Hill Creek,	Monongahela,	1.7	
LICK RUN,	Tioga,	Pine Creek,	Middle West Branch Susquehanna,	5.0	
LICK RUN,	Union,	White Deer Creek,	Lower West Branch Susquehanna,	1.0	
LICK RUN,	Venango,	Sugar Creek,	Upper Allegheny,	1.6	
LICK RUN,	Washington,	Short Creek,	Monongahela,	0.7	
LICKING CREEK,	Berks,	Tulpehocken Creek,	Lower Delaware,	3.4	
LICKING CREEK,	Bucks,	East Swamp Creek,	Lower Delaware,	3.5	
•LICKING CREEK,	Clarion,	Clarion River,	Middle Allegheny,	51.8	412
•LICKING CREEK	Franklin,	Potomac River,	Potomac,	177.0 in Pa	413
•LICKING CREEK,	Franklin,	West Branch Conococheague Creek,	Potomac,	34.6	413
•LICKING CREEK,	Juniata,	Tuscarora Creek,	Lower Juniata,	38.9	414
LICKING (LITTLE) CREEK,	Clarion,	Licking Creek,	Middle Allegheny,	5.4	
LICKING RUN,	Clarion,	Paint Creek,	Middle Allegheny,	0.8	
LICK ISLAND RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	7.2	
LIDY CREEK (or LITTLE MILL CREEK),	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	9.2	
LIGHTNER RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	1.8	
LIGHTNER RUN,	Huntingdon,	Shaver Creek,	Upper Juniata,	4.5	
LIGHTNING RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	0.7	
LIKENS RUN,	Butler,	Breakneck Creek,	Main Ohio,	3.7	
LILLIBRIDGE CREEK,	McKean,	Allegheny River,	Upper Allegheny,	8.8	
LILLY RUN,	Erie,	South Branch French Creek,	Upper Allegheny,	4.3	
LILLY RUN,	Fayette,	Dunlap Creek,	Monongahela,	3.4	
LILLY RUN,	Washington,	Pike Run,	Monongahela,	2.1	
LIME KILN CREEK,	Berks,	Monocacy Creek,	Lower Delaware,	4.2	
LIME KILN CREEK, WEST BRANCH,	Berks,	Lime Kiln Creek,	Lower Delaware,	3.2	
LIME KILN RUN,	Erie,	Bentley Run,	Upper Allegheny,	1.6	
LIMESTONE RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	10.2	
LIMESTONE RUN,	Fayette,	Dunbar Creek,	Monongahela,	3.0	
LIMESTONE RUN,	Northumberland,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	14.6	
LINCOLN RUN,	Cambria,	South Branch Blacklick Creek,	Lower Allegheny,	1.8	
LINDSAY RUN,	Armstrong,	Crooked Creek,	Middle Allegheny,	1.8	
LINESVILLE CREEK,	Crawford,	Shenango River,	Main Ohio,	11.6	
LINESVILLE CREEK,	Luzerne,	Lehigh River,	Middle Delaware,	4.8	
LINGLE CREEK,	Mifflin,	Laurel Creek,	Lower Juniata,	1.9	
LININGERS RUN,	Juniata,	West Branch Mahantango Creek,	Middle Main Susquehanna,	6.9	
LINN BRANCH,	McKean	South Branch Sugar Run,	Upper Allegheny,	2.0	
LINN RUN,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	10.4	
LIONERS CREEK,	York,	East Branch Codorus Creek,	Lower Main Susquehanna,	3.0	
LISMANS RUN,	Perry,	Sherman Creek,	Lower Main Susquehanna,	1.3	
LITHIA VALLEY CREEK,	Wyoming,	South Branch Tunkhannock Creek,	Upper North Branch Susquehanna,	7.0	
LITITZ RUN,	Lancaster,	New Haven Run,	Lower Main Susquehanna,	14.1	
LITTLE CREEK,	Monroe,	Middle Creek,	Middle Delaware,	14.5	
LITTLE CREEK,	Schuylkill,	Big Creek,	Lower Delaware,	0.6	
LITTLE CREEK,	Susquehanna,	East Branch Tunkhannock Creek,	Upper North Branch Susquehanna,	2.4	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
LITTLE FALLS,	York,	Gunpowder Falls,	Lower Main Susquehanna,	5.1 in Pa.	
LITTLE RUN,	Center,	Big Fill Run,	Upper Juniata,	4.9	
LITTLE RUN,	Westmoreland,	Loyalhanna Creek	Lower Allegheny,	1.9	
LITTLE (see also significant name).					
LITTLES RUN,	Adams,	Rock Creek,	Potomac,	7.4	
•LIZARD CREEK,	Carbon,	Lehigh River,	Middle Delaware,	53.8	414
LOBBS RUN,	Allegheny,	Monongahela River,	Monongahela,	3.8	
LOCUST CREEK,	Northumberland,	Shamokin Creek,	Middle Main Susquehanna,	5.1	
LOCUST CREEK,	Schuylkill,	Little Schuylkill River,	Lower Delaware,	13.5	
LOCUST CREEK, WEST BRANCH,	Northumberland,	Locust Creek,	Middle Main Susquehanna	2.3	
LOGAN BRANCH,	Center,	Spring Creek,	Middle West Branch Susquehanna,	12.0	
LOGAN RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	3.5	
LOGAN RUN,	Huntingdon,	Little Juniata River,	Upper Juniata,	5.0	
LOGAN RUN,	Huntingdon,	Old Woman Run,	Lower Juniata,	2.2	
LOGAN RUN,	Northumberland,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	9.6	
LOGTOWN RUN,	Beaver,	Ohio River,	Main Ohio,	5.7	
LOGUES RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	2.5	
LOGWAY RUN,	Center,	Beech Creek,	Middle West Branch Susquehanna,	1.2	
LOHR RUN,	Somerset,	Laurel Hill Creek,	Monongahela,	6.5	
LONDONLAND RUN,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	10.4	
LONG BROOK,	McKean,	Marvin Creek,	Upper Allegheny,	4.4	
LONG BROOK,	Sullivan,	Muncy Creek,	Lower West Branch Susquehanna,	1.9	
LONG RUN,	Allegheny,	Deer Creek,	Lower Allegheny,	1.4	
LONG RUN,	Allegheny,	Youghiogheny River,	Monongahela,	13.3	
LONG RUN,	Armstrong,	Cowanshannock Creek,	Middle Allegheny,	1.2	
LONG RUN,	Armstrong,	Fogley Run,	Middle Allegheny,	1.0	
LONG RUN,	Armstrong,	Kiskiminitas River,	Lower Allegheny,	8.0	
LONG RUN,	Armstrong,	Patterson Creek,	Lower Allegheny,	5.3	
LONG RUN,	Armstrong,	Sugar Creek,	Middle Allegheny,	1.3	
LONG RUN,	Butler,	Slippery Rock Creek,	Main Ohio,	3.8	
LONG RUN,	Cambria,	Moss Creek,	Upper West Branch Susquehanna,	2.0	
•LONG RUN,	Carbon,	Lehigh River,	Middle Delaware,	4.0	415
LONG RUN,	Clarion,	Redbank Creek	Middle Allegheny,	2.6	
LONG RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	4.0	
LONG RUN,	Clinton,	Big Fishing Creek,	Middle West Branch Susquehanna,	21.4	
LONG RUN,	Fayette,	Laurel Run,	Monongahela,	1.4	
LONG RUN,	Greene,	North Fork Dunkard Fork,	Main Ohio,	3.7	
LONG RUN,	Jefferson,	Little Mill Creek,	Middle Allegheny,	0.8	
LONG RUN,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	2.4	
LONG RUN,	McKean,	Allegheny Portage Creek,	Upper Allegheny,	0.4	
LONG RUN,	Potter,	Kettle Creek,	Middle West Branch Susquehanna,	2.4	
LONG RUN,	Tioga,	Bellman Run,	Upper North Branch Susquehanna,	1.8	
LONG RUN,	Tioga,	Pine Creek,	Middle West Branch Susquehanna,	21.1	
LONG ARM CREEK	York,	South Branch Conewago Creek,	Lower Main Susquehanna,	5.6	
LONG MEADOW BROOK,	Pike,	Adams Creek,	Upper Delaware,	0.9	
LONG MEADOW RUN,	Mifflin,	Jacks Creek,	Lower Juniata,	12.6	

LONG PINE RUN,	Adams,	Birch Run,	Potomac,	2.9	
LOOSEY RUN,	Potter,	Cushing Creek,	Middle West Branch Susquehanna,	4.9	
LOPEZ CREEK,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	18.8	
LORBERRY CREEK,	Schuylkill,	Lower Rausch Creek,	Lower Main Susquehanna,	4.7	
LORSBAUGH RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	4.4	
LOSH RUN,	Perry,	Juniata River,	Lower Juniata,	4.0	
LOST CREEK,	Cambria,	Clearfield Creek,	Upper West Branch Susquehanna,	1.8	
•LOST CREEK,	Juniata,	Juniata River,	Lower Juniata,	35.7	415
LOST CREEK,	Schuylkill,	Shenandoah Creek,	Middle Main Susquehanna,	1.2	
LOST RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	2.8	
LOST RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	2.5	
LOST RUN,	Jefferson,	Clover Run,	Middle Allegheny,	2.2	
LOST RUN,	McKean,	East Branch Potato Creek,	Upper Allegheny,	1.5	
LOST RUN,	Somerset,	Casselman River,	Monongahela,	2.7	
LOUP RUN,	Blair,	Tipton Run,	Upper Juniata,	3.2	
LOUP RUN,	Clinton,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	3.4	
LOVELTON RUN,	Wyoming,	North Branch Mehoopany Creek,	Upper North Branch Susquehanna,	4.5	
LOWE HOLLOW,	Fayette,	Mountain Creek,	Monongahela,	0.9	
LOWER (See significant name).					
LOWRIE RUN,	Allegheny,	Ohio River,	Main Ohio,	16.7	
•LOYALHANNA CREEK,	Westmoreland,	Kiskiminitas River,	Lower Allegheny,	300.0	416
•LOYALSOCK CREEK,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	492.8	417
LOYALSOCK CREEK, SOUTH BRANCH,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	9.0	
•LOYALSOCK (LITTLE) CREEK,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	91.0	418
LUCAS RUN,	Jefferson,	North Fork Redbank Creek,	Middle Allegheny,	4.0	
LUTMAN RUN,	Perry,	Little Buffalo Creek,	Lower Juniata,	2.2	
LUTZ RUN,	Fayette,	Downers Run,	Monongahela,	2.4	
•LYCOMING CREEK,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	276.1	419
LYCOMING CREEK, NORTH BRANCH,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	3.1	
LYDICKS RUN,	Clearfield,	Hartshorn Run,	Upper West Branch Susquehanna,	0.7	
LYNCH RUN,	Dauphin,	Conewago Creek,	Lower Main Susquehanna,	4.1	
LYON CREEK,	Lehigh,	Jordan Creek,	Middle Delaware,	12.3	
LYON RUN,	Venango	South Sandy Creek,	Upper Allegheny,	3.2	
LYONS RUN,	Chester,	Marsh Creek,	Lower Delaware,	1.7	
LYONS RUN,	Westmoreland,	Turtle Creek,	Monongahela,	8.9	
McCABE RUN,	Allegheny,	Ohio River,	Main Ohio,	1.0	
McCABES RUN,	Perry,	Sherman Creek,	Lower Main Susquehanna,	12.0	
McCALMONT RUN,	Venango,	Allegheny River,	Upper Allegheny,	0.9	
McCARTHEY RUN,	Indiana,	Whites Run,	Lower Allegheny,	4.2	
McCASTIN RUN,	Allegheny,	Gourdhead Run	Lower Allegheny,	1.0	
McCAUTRY RUN,	Beaver,	North Fork Little Beaver River,	Main Ohio,	2.3	
McCONAUGHY RUN (or HIGGINS RUN),	Somerset,	Quemahoning Creek,	Lower Allegheny,	5.8	
McCORD RUN,	McKean,	North Branch Cole Creek,	Upper Allegheny,	3.5	
McCORMICK RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	5.1	
McCOURTNEY RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	21.7	
McCOY RUN (or CONNELL RUN),	Fayette,	Youghiogheny River,	Monongahela,	3.7	
McCRACKEN RUN,	Jefferson,	Big Run,	Middle Allegheny,	2.8	
McCRAKEN RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	2.9	
McCREARY RUN,	Lancaster,	Octoraro Creek,	Lower Main Susquehanna,	4.3	
McCREIGHT RUN,	Jefferson,	Solater Run,	Middle Allegheny,	1.8	
McCUNE RUN,	Venango,	French Creek,	Upper Allegheny,	4.6	
McCUTCHEON RUN,	Mercer,	Sandy Lake Outlet,	Upper Allegheny,	1.4	
McDONALD RUN,	Blair,	Frankstown Branch	Upper Juniata,	1.7	
McDONALD RUN,	Butler,	Slippery Rock Creek,	Main Ohio,	4.0	
McDONALD RUN,	Chester,	West Branch Big Elk Creek,	Lower Main Susquehanna,	1.2	

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McDONALD RUN,	Clinton,	Bald Eagle Creek,	Middle West Branch Susquehanna,	3.6	
McDOWELL RUN (or HOWE RUN),	Allegheny,	Bull Creek,	Lower Allegheny,	4.0	
*McELHATTON CREEK,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	19.7	419
McELROY RUN,	Beaver,	South Branch Brady Run,	Main Ohio,	1.5	
McGARVEY RUN,	Blair,	Burgoon Run,	Upper Juniata,	1.1	
McGEE RUN,	Crawford,	Caldwell Creek,	Upper Allegheny,	2.2	
McGEE RUN,	Warren,	Allegheny River,	Upper Allegheny,	1.0	
*McGEE RUN,	Westmoreland,	Conemaugh River,	Lower Allegheny,	26.1	420
McGINNESS RUN,	Westmoreland,	Jacobs Creek,	Monongahela,	6.3	
McGINNIS RUN (or WEELER RUN),	Schuylkill,	West Branch Schuylkill River,	Lower Delaware,	1.2	
McGRANNAHAN RUN,	Crawford,	Shenango River,	Main Ohio,	3.9	
McGUIRE RUN,	Warren,	Allegheny River,	Upper Allegheny,	6.3	
McINTIRE RUN,	Fayette,	Big Sandy Creek,	Monongahela,	3.4	
McKEE RUN,	Fulton,	Great Tonoloway Creek,	Potomac,	13.9	
*McKEE RUN,	Indiana,	Crooked Creek,	Middle Allegheny,	14.0	421
McKEE RUN,	Jefferson,	Big Run,	Middle Allegheny,	3.4	
McKEE RUN,	Lawrence,	Beaver River,	Main Ohio,	6.1	
McKEE RUN,	Lycoming,	Little Pine Creek,	Middle West Branch Susquehanna,	1.5	
McKEES CREEK,	Perry,	Little Buffalo Creek,	Lower Juniata,	2.0	
McKEES RUN,	Northumberland,	Susquehanna River,	Middle Main Susquehanna,	2.4	
McKEES HALF FALL RUN,	Northumberland,	McKees Run,	Middle Main Susquehanna,	0.5	
McKINLEY RUN,	Venango,	Scrubgrass Creek,	Upper Allegheny,	3.3	
McLAUGHLIN CREEK (or BOGG CREEK),	Crawford,	Thompson Run,	Upper Allegheny,	10.3	
McLAUGHLIN RUN,	Allegheny,	Chartiers Creek,	Main Ohio,	7.2	
McLAUGHLIN RUN,	Beaver,	Upper Dry Run,	Main Ohio,	1.3	
McMAHON RUN,	Venango,	Allegheny River,	Upper Allegheny,	0.5	
McMASTERS RUN,	Clearfield,	Wilson Run,	Upper West Branch Susquehanna,	1.2	
McMICHAEL CREEK,	Crawford,	Shenango River,	Main Ohio,	8.0	
McMICHAEL RUN,	Crawford,	Conneaut Lake Creek,	Upper Allegheny,	7.0	
*McMICHAELS CREEK,	Monroe,	Brodheads Creek,	Upper Delaware,	106.6	421
McMILAN RUN,	Westmoreland,	Laughlintown Run,	Lower Allegheny,	3.2	
McMURRAY RUN,	Butler,	Slippery Rock Creek,	Main Ohio,	13.1	
McPHERSON CREEK,	Washington,	Chartiers Creek,	Main Ohio,	2.8	
McREA RUN,	Venango,	Allegheny River,	Upper Allegheny,	3.2	
McSHERRY RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	9.0	
MACKEY RUN,	Crawford,	Muddy Creek,	Upper Allegheny,	15.8	
MACOBY CREEK,	Montgomery,	Perkiomen Creek,	Lower Delaware,	17.6	
MADDEN RUN,	Beaver,	North Fork Little Beaver River,	Main Ohio,	2.5	
MAGEE RUN,	Warren,	Allegheny River,	Upper Allegheny,	0.6	
*MAHANOY CREEK,	Northumberland,	Susquehanna River,	Middle Main Susquehanna,	155.5	422
MAHANOY CREEK NORTH BRANCH,	Schuylkill,	Mahanoy Creek,	Middle Main Susquehanna,	5.1	
MAHANOY (LITTLE) CREEK,	Schuylkill,	Mahanoy Creek,	Middle Main Susquehanna,	10.5	
*MAHANTANGO CREEK,	Dauphin and Northumberland	Susquehanna River,	Middle Main Susquehanna,	164.6	423
*MAHANTANGO CREEK,	Juniata and Snyder,	Susquehanna River,	Middle Main Susquehanna,	85.3	424
*MAHANTANGO CREEK, NORTH BRANCH	Snyder,	Mahantango Creek,	Middle Main Susquehanna,	36.3	425

*MAHANTANGO CREEK, WEST BRANCH,	Juniata and Snyder,	Mahantango Creek,	Middle Main Susquehanna,	47.4	424
MAHANTANGO (LITTLE) CREEK,	Schuylkill,	Mahantango Creek,	Middle Main Susquehanna,	15.4	
*MAHONING CREEK,	Armstrong,	Allegheny River,	Middle Allegheny,	424.4	425
*MAHONING CREEK,	Carbon,	Lehigh River,	Middle Delaware,	37.8	426
*MAHONING CREEK,	Montour,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	39.5	427
*MAHONING CREEK, EAST BRANCH,	Jefferson,	Mahoning Creek,	Middle Allegheny,	42.9	428
*MAHONING (LITTLE) CREEK,	Indiana,	Mahoning Creek,	Middle Allegheny,	81.0	428
MAHONING (LITTLE) CREEK, NORTH BRANCH,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	14.5	
*MAHONING RIVER,	Lawrence,	Beaver River,	Main Ohio	1,099.4	429
*MAIDEN CREEK,	Berks,	Schuylkill River,	Lower Delaware,	215.8	430
MAIN BRANCH (See name of main stream)					
MALLHEAD CREEK,	Berks,	Northkill Creek,	Lower Delaware,	4.7	
*MANADA CREEK	Dauphin,	Swatara Creek,	Lower Main Susquehanna,	31.9	431
*MANATAWNY CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	90.4	431
*MANATAWNY (LITTLE) CREEK,	Berks,	Manatawny Creek,	Lower Delaware,	35.8	432
MANHATTAN CREEK,	York,	Susquehanna River,	Lower Main Susquehanna,	4.0	
MANNER RUN,	Lycoming,	Slate Run,	Middle West Branch Susquehanna,	1.1	
MANNS CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	3.3	
MANNS RUN,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	0.7	
MAPLE BROOK,	Pike,	Rattlesnake Brook,	Upper Delaware,	0.6	
MAPLE CREEK,	Forest,	Clarion River	Middle Allegheny,	21.0	
MAPLE CREEK,	Luzerne,	Kitchen Creek,	Lower North Branch Susquehanna,	3.9	
MAPLE CREEK,	Washington,	Monongahela River,	Monongahela,	10.4	
MAPLE CREEK, SOUTH BRANCH,	Washington,	Maple Creek,	Monongahela,	5.7	
MAPLEPOLE RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	1.0	
MARANDA RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	2.1	
MARCUS HOOK CREEK,	Delaware,	Delaware River,	Lower Delaware,	5.5	
MARDIS RUN,	Indiana,	Blacklick Creek,	Lower Allegheny	6.0	
MARGARET RUN,	Lycoming,	Carpenter Run,	Lower West Branch Susquehanna,	3.2	
MARILLA CREEK,	McKean,	West Branch Tunungwant Creek,	Upper Allegheny,	11.6	
*MARK RUN (or WARRIORS RUN),	Huntingdon,	Spruce Creek,	Upper Juniata;	33.3	637
MARROWBONE RUN,	Armstrong,	Buffalo Creek,	Lower Allegheny,	3.2	
*MARSH CREEK,	Adams,	Monocacy River,	Potomac,	79.4	433
*MARSH CREEK,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	45.8	434
MARSH CREEK,	Chester,	East Branch Brandywine Creek,	Lower Delaware,	20.4	
MARSH CREEK,	Sullivan	Little Loyalsock Creek,	Lower West Branch Susquehanna,	3.3	
*MARSH CREEK,	Tioga	Pine Creek,	Middle West Branch Susquehanna,	77.7	434
MARSH CREEK,	Wyoming,	Bowman Creek,	Upper North Branch Susquehanna,	10.2	
MARSH (LITTLE) CREEK,	Adams,	Marsh Creek	Potomac,	21.1	
MARSH RUN,	Erie,	Conneaut Creek,	Erie,	4.8	
MARSH RUN,	Franklin,	Little Antietam Creek,	Potomac,	18.4 in Pa.	
MARSH RUN,	Indiana,	Whites Run,	Lower Allegheny	2.4	
MARSH RUN,	York,	Susquehanna River,	Lower Main Susquehanna,	2.8	
MARSH (LITTLE) RUN,	Lycoming,	Beaverdam Run,	Lower West Branch Susquehanna,	0.7	
*MARSHALL CREEK,	Monroe,	Brodheads Creek,	Upper Delaware,	33.7	435
MARSHALL RUN,	Indiana,	Blacklegs Creek,	Lower Allegheny,	4.2	
*MARTIN CREEK,	Wyoming,	Tunkhannock Creek,	Upper North Branch Susquehanna,	57.5	435
MARTIN HOLLOW,	Washington,	Harmon Creek,	Main Ohio	1.9	
MARTIN RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	1.2	
MARTIN RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	0.9	
*MARTINS CREEK,	Northampton,	Delaware River,	Upper Delaware,	46.7	436
MARTINS CREEK, EAST FORK,	Northampton,	Martins Creek,	Upper Delaware,	2.3	
MARTINS CREEK, WEST FORK,	Northampton,	Martins Creek,	Upper Delaware,	3.3	

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MARTINS (LITTLE) CREEK,	Northampton,	Martins Creek,	Upper Delaware,	6.3	
MARTINS RUN,	Lycoming,	West Mill Creek,	Lower West Branch Susquehanna,	0.7	
•MARVIN CREEK,	McKean,	Potato Creek,	Upper Allegheny,	58.3	437
MARVIN CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	8.3	
MASON RUN,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	1.6	
•MAST HOPE CREEK,	Pike,	Delaware River,	Upper Delaware,	29.9	437
MATSUNK CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	0.7	
MATTHEWS RUN,	Warren,	Brokenstraw Creek,	Upper Allegheny,	15.7	
MAUCH CHUNK CREEK,	Carbon,	Lehigh River,	Middle Delaware,	8.9	
MAXWELL RUN,	Elk,	Clarion River,	Middle Allegheny,	9.6	
MAYHOOD RUN,	Elk,	Clarion River,	Middle Allegheny,	2.9	
MAYS RUN (or PINE HILL RUN),	Venango,	Allegheny River,	Upper Allegheny,	3.7	
MEAD RUN,	Elk,	Little Toby Creek,	Middle Allegheny,	5.3	
MEAD RUN,	Warren,	Brokenstraw Creek,	Upper Allegheny,	5.0	
MEAD RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	0.8	
MEADE (LITTLE) RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	1.3	
MEAD-EDDY RUN,	Warren,	Kinzua Creek,	Upper Allegheny,	0.4	
MEADOW BROOK,	Delaware,	Ithan Creek,	Lower Delaware,	2.6	
MEADOW BROOK,	Montgomery,	Pennypack Creek,	Lower Delaware,	3.4	
MEADOW (BIG) CREEK,	Monroe,	Pocono Creek,	Upper Delaware,	1.8	
MEADOW RUN,	Fayette,	Monongahela River,	Monongahela,	1.6	
MEADOW RUN,	Greene,	Dunkard Creek,	Monongahela,	7.7	
MEADOW RUN,	Lancaster,	Cocalico Creek,	Lower Main Susquehanna,	1.1	
MEADOW RUN,	Somerset,	Casselman River,	Monongahela,	7.5	
MEADOW RUN,	Westmoreland,	Jacobs Creek,	Monongahela,	7.1	
•MEADOW (BIG) RUN,	Fayette,	Youghiogheny River,	Monongahela,	35.9	438
•MEANS RUN (or MIDDLE SPRING CREEK).	Cumberland and Franklin.	Conodoguinet Creek,	Lower Main Susquehanna,	50.3	438
•MEDIX RUN,	Elk,	Bennett Branch,	Upper West Branch Susquehanna,	30.8	439
MEEKER HOLLOW RUN,	Potter,	Pine Creek,	Middle West Branch Susquehanna,	3.6	
MEEKS RUN,	Allegheny,	Montour Run,	Main Ohio,	2.3	
MEETINGHOUSE CREEK,	Lancaster,	West Branch Octoraro Creek,	Lower Main Susquehanna,	5.5	
MEFFERT RUN,	Elk,	West Branch Clarion River,	Middle Allegheny,	3.4	
•MEHOOPANY CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	131.2	440
•MEHOOPANY CREEK, NORTH BRANCH,	Wyoming,	Mehoopany Creek,	Upper North Branch Susquehanna,	50.0	440
MEHOOPANY (LITTLE) CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	7.2	
•MESHOPPEN CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	117.9	441
•MESHOPPEN CREEK, WEST BRANCH (or WHITE CREEK).	Wyoming	Meshoppen Creek,	Upper North Branch Susquehanna,	27.9	442
•MESHOPPEN (LITTLE) CREEK,	Wyoming,	Meshoppen Creek,	Upper North Branch Susquehanna,	13.2	442
MESSENGER RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	0.8	
MESSERS RUN,	Schuylkill,	Catawissa Creek,	Lower North Branch Susquehanna,	7.6	
MIAM HOLLOW,	McKean,	Lewis Run,	Upper Allegheny,	1.2	
MICKLE RUN,	Tioga,	Babb Creek,	Middle West Branch Susquehanna,	3.5	
MIDDAUGH CREEK,	Bradford,	Wyalusing Creek,	Upper North Branch Susquehanna,	6.7	
MIDDLE BRANCH OR FORK (See name of main stream).					

*MIDDLE CREEK,	Adams,	Toms Creek,	Potomac,	24.2 in Pa.	443
*MIDDLE CREEK,	Lancaster,	Cocalico Creek,	Lower Main Susquehanna,	32.9	443
MIDDLE CREEK,	Monroe,	Pohopoco Creek,	Middle Delaware,	20.1	
MIDDLE CREEK,	Montgomery,	West Swamp Creek,	Lower Delaware,	4.2	
MIDDLE CREEK,	Schuylkill,	Good Spring Creek,	Lower Main Susquehanna,	6.6	
*MIDDLE CREEK,	Snyder,	Penns Creek,	Middle Main Susquehanna,	163.5	444
*MIDDLE CREEK,	Wayne,	Lackawaxen River,	Upper Delaware,	77.4	445
MIDDLE CREEK, NORTH BRANCH,	Snyder,	Middle Creek,	Middle Main Susquehanna,	19.9	
MIDDLE CREEK, SOUTH BRANCH,	Snyder,	Middle Creek,	Middle Main Susquehanna,	10.3	
MIDDLE RUN,	Cameron,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	4.7	
MIDDLE RUN,	Clarion,	Redbank Creek,	Middle Allegheny,	3.3	
MIDDLE RUN,	Clarion,	Redbank Creek,	Middle Allegheny,	2.0	
MIDDLE RUN,	Fayette,	Monongahela River,	Monongahela,	4.3	
MIDDLE (See also significant name).					
MILES RUN,	Center,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	8.5	
MILES RUN,	Delaware,	Darby Creek,	Lower Delaware,	0.2	
MILES RUN,	Warren,	Little Brokenstraw Creek,	Upper Allegheny,	6.7	
MILES RUN RUN,	Cumberland,	Thompsons Hollow,	Lower Main Susquehanna,	7.4	
MILL BRANCH,	York,	Otter Creek,	Lower Main Susquehanna,	2.9	
MILL BROOK,	Bradford,	Mill Creek,	Upper North Branch Susquehanna,	2.9	
MILL BROOK,	Wyoming,	Tunkhannock Creek,	Upper North Branch Susquehanna,	14.3	
MILL CREEK,	Beaver,	Ohio River,	Main Ohio,	15.2	
*MILL CREEK,	Berks,	Saucony Creek,	Lower Delaware,	23.4	445
MILL CREEK,	Berks,	Schuylkill River,	Lower Delaware,	18.0	
MILL CREEK,	Berks,	Schuylkill River,	Lower Delaware,	3.3	
MILL CREEK,	Berks,	Tulpehocken Creek,	Lower Delaware,	16.0	
MILL CREEK,	Berks,	Tulpehocken Creek,	Lower Delaware,	13.4	
MILL CREEK (or LITTLE WYSOX CREEK).	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	10.6	
MILL CREEK,	Bradford,	Sugar Creek,	Upper North Branch Susquehanna,	14.9	
MILL CREEK,	Bradford,	Towanda Creek,	Upper North Branch Susquehanna,	9.4	
MILL CREEK,	Bucks,	Delaware River,	Middle Delaware,	21.7	
MILL CREEK,	Bucks,	Neshaminy Creek,	Middle Delaware,	22.1	
MILL CREEK,	Bucks,	Neshaminy Creek,	Middle Delaware,	17.2	
MILL CREEK,	Bucks,	Northeast Branch Perkiomen Creek,	Lower Delaware,	4.7	
MILL CREEK,	Chester,	White Clay Creek,	Lower Delaware,	0.4 in Pa.	
*MILL CREEK,	Clarion,	Clarion River,	Middle Allegheny,	55.5	446
MILL CREEK,	Clarion,	Toby Creek,	Middle Allegheny,	3.8	
MILL CREEK,	Elk,	Elk Creek,	Middle Allegheny,	12.4	
MILL CREEK,	Erie,	Lake Erie,	Erie,	12.9	
*MILL CREEK,	Huntingdon,	Juniata River,	Lower Juniata,	39.2	447
*MILL CREEK,	Jefferson,	Sandy Lick Creek,	Middle Allegheny,	54.9	447
*MILL CREEK,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	56.5	448
MILL CREEK,	Lehigh,	Jordan Creek,	Middle Delaware,	9.6	
*MILL CREEK,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	36.8	448
MILL CREEK,	Lycoming,	Loyalsock Creek,	Lower West Branch Susquehanna,	20.7	
MILL CREEK,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	12.8	
MILL CREEK,	Mercer,	Cool Spring Creek,	Main Ohio,	14.8	
MILL CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	8.1	
*MILL CREEK,	Potter,	Allegheny River,	Upper Allegheny,	32.2	449
*MILL CREEK,	Schuylkill,	Schuylkill River,	Lower Delaware,	25.0	450
MILL CREEK,	Somerset,	Bens Creek,	Lower Allegheny,	6.5	
MILL CREEK,	Sullivan,	Lick Creek,	Lower West Branch Susquehanna,	5.8	
MILL CREEK,	Sullivan,	Little Loyalsock Creek,	Lower West Branch Susquehanna,	1.6	
*MILL CREEK,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	7.4	450

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Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
MILL CREEK,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	5.3	
MILL CREEK,	Tioga,	Cowanesque River,	Upper North Branch Susquehanna,	13.0	
MILL CREEK,	Tioga,	Lycoming Creek,	Lower West Branch Susquehanna,	12.6	
•MILL CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	77.2	451
MILL CREEK,	Venango,	Allegheny River,	Upper Allegheny,	15.5	
MILL CREEK,	Venango,	French Creek,	Upper Allegheny,	17.2	
MILL CREEK,	Wayne,	Wallenpaupack Creek,	Upper Delaware,	7.5	
MILL CREEK,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	21.1	
MILL CREEK,	York,	Codorus Creek,	Lower Main Susquehanna,	18.0	
MILL CREEK, MIDDLE FORK,	Westmoreland,	Mill Creek,	Lower Allegheny,	4.8	
MILL CREEK, SOUTH FORK,	Westmoreland,	Mill Creek,	Lower Allegheny,	2.7	
•MILL (BIG) CREEK,	Elk,	Clarion River,	Middle Allegheny,	28.8	452
MILL (EAST) CREEK,	Tioga,	Mill Creek,	Lower West Branch Susquehanna,	4.0	
MILL (LITTLE) CREEK,	Beaver,	Mill Creek,	Main Ohio,	3.3	
MILL (LITTLE) CREEK,	Clarion,	Mill Creek,	Middle Allegheny,	13.7	
MILL (LITTLE) CREEK,	Elk,	Clarion River,	Middle Allegheny,	14.8	
MILL (LITTLE) CREEK,	Jefferson,	Mill Creek,	Middle Allegheny,	10.8	
MILL (LITTLE) CREEK (or LIDY CREEK),	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	9.2	
MILL (WEST) CREEK,	Lycoming,	Loyalsock Creek,	Lower West Branch Susquehanna,	24.4	
MILL (WEST) CREEK,	Tioga,	Mill Creek,	Lower West Branch Susquehanna,	8.3	
MILL RUN,	Armstrong,	Cowanshannock Creek,	Middle Allegheny,	7.2	
MILL RUN,	Blair,	Beaverdam Branch Frankstown Branch,	Upper Juniata,	8.8	
MILL RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	2.2	
MILL RUN,	Clinton,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	8.7	
MILL RUN,	Crawford,	French Creek,	Upper Allegheny,	8.4	
MILL RUN,	Fayette,	Downers Run,	Monongahela,	1.5	
MILL RUN,	Fayette,	Youghiogheny River,	Monongahela,	7.6	
MILL RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	13.2	
MILL RUN,	Mercer,	Neshannock Creek,	Main Ohio,	4.5	
MILL RUN,	Mercer,	Sandy Creek,	Upper Allegheny,	3.2	
MILL RUN,	Somerset,	Youghiogheny River,	Monongahela	3.9 in Pa.	
MILL RUN,	Warren,	Jackson Run,	Upper Allegheny,	6.0	
MILL BROOK RUN,	Pike,	Wallenpaupack Creek,	Upper Delaware,	7.1	
MILLER RUN,	Bradford,	Bentley Creek,	Upper North Branch Susquehanna,	5.2	
MILLER RUN,	Clarion,	Redbank Creek,	Middle Allegheny,	0.6	
MILLER RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	0.9	
MILLER RUN,	Huntingdon,	Shoups Run,	Upper Juniata,	2.9	
MILLER RUN,	Indiana,	Aultmans Run,	Lower Allegheny,	2.1	
MILLER RUN,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	6.3	
MILLER RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	4.2	
MILLER RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	9.1	
MILLER RUN,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	3.6	
MILLERS CREEK (or TINKLEPAUGH CREEK),	**Lackawanna,**	**Wildcat Creek,**	**Lower North Branch Susquehanna,**	**3.9**	

*MILLERS RUN,	Allegheny,	Chartiers Creek,	Main Ohio,	28.6	452
MILLERS RUN,	Lancaster,	Swarr Run,	Lower Main Susquehanna,	1.3	
MILLERS RUN,	York,	Yellow Breeches Creek,	Lower Main Susquehanna,	0.5	
MILL HOPPER CREEK,	Luzerne,	Sandy Run,	Middle Delaware,	0.9	
MILLIGAN RUN,	Blair,	Tipton Run,	Upper Juniata,	1.0	
MILLIGAN RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	3.4	
MILLIRON RUN,	Jefferson,	Little Sandy Creek,	Middle Allegheny,	1.9	
*MILLSTONE CREEK,	Elk,	Clarion River,	Middle Allegheny,	61.4	453
MILLSTONE (EAST) CREEK,	Elk,	Millstone Creek,	Middle Allegheny,	22.8	
MILLSTONE RUN,	Bradford,	Shrader Branch,	Upper North Branch Susquehanna,	10.5	
MILLSTONE RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	4.3	
MILLWOOD RUN,	Westmoreland,	McGee Run,	Lower Allegheny,	2.2	
MINARD RUN,	McKean,	East Branch Tuneungwant Creek,	Upper Allegheny,	10.5	
MINE RUN,	Luzerne,	Grim Run,	Lower North Branch Susquehanna,	0.3	
MINE RUN,	Montgomery,	Perkiomen Creek,	Lower Delaware,	2.6	
MINE RUN,	Schuylkill,	Mahanoy Creek,	Middle Main Susquehanna,	3.8	
MINEHART RUN,	Mifflin,	Juniata River,	Lower Juniata,	1.9	
MINERAL RUN,	Allegheny,	Lick Run,	Monongahela,	0.8	
MINERAL RUN,	Clarion,	Licking Creek,	Middle Allegheny,	2.0	
MINEY BRANCH,	Adams,	Toms Creek,	Potomac,	8.8	
MINGO CREEK,	Philadelphia,	Schuylkill River,	Lower Delaware,	....	
MINGO CREEK,	Washington,	Monongahela River,	Monongahela,	21.6	
MINGO RUN,	Montgomery,	Schuylkill River,	Lower Delaware,	7.4	
MINISTER CREEK,	Forest,	Tionesta Creek,	Upper Allegheny,	11.1	
MINISTER RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	2.2	
MINISTERS CREEK,	Montgomery,	West Swamp Creek,	Lower Delaware,	7.8	
MINK RUN,	Bucks,	Tohickon Creek,	Middle Delaware,	2.1	
MINNIS RUN,	Mercer,	Crooked Creek,	Main Ohio,	2.0	
MINNOW RUN,	Fayette,	Monongahela River,	Monongahela,	1.5	
MITCHELL CREEK,	Bradford,	Tom Jack Creek,	Upper North Branch Susquehanna,	2.6	
MITCHELL CREEK,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	9.3	
MITCHELL CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	10.1	
MITCHELL RUN,	Indiana,	Crooked Creek,	Middle Allegheny,	3.2	
*MIX RUN,	Cameron,	Bennett Branch,	Upper West Branch Susquehanna,	36.6	453
MIX RUN,	Jefferson,	Solater Run,	Middle Allegheny,	3.6	
MIX RUN,	Warren,	Wildcat Run,	Upper Allegheny,	1.6	
MIXSELL CREEK,	Monroe,	Princess Creek,	Middle Delaware,	11.8	
MOCCASIN RUN,	Clinton,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	7.2	
MOHAN RUN,	Elk,	Elk Creek,	Middle Allegheny,	6.2	
MOHANNON CREEK (or SILFIS RUN),	Schuylkill,	Schuylkill River,	Lower Delaware,	11.1	
MOHAWK RUN,	Crawford,	French Creek,	Upper Allegheny,	3.9	
MOHLER RUN,	Lancaster,	Cocalico Creek,	Lower Main Susquehanna,	0.8	
MOLASSES CREEK,	Bucks,	East Swamp Creek,	Lower Delaware,	3.9	
MONASTERY RUN,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	12.3	
*MONOCACY CREEK,	Berks,	Schuylkill River,	Lower Delaware,	25.5	454
*MONOCACY CREEK,	Lehigh and Northampton	Lehigh River,	Middle Delaware,	49.6	455
MONOCACY CREEK, EAST BRANCH,	Northampton,	Monocacy Creek,	Middle Delaware,	16.9	
MONOCACY RIVER,	State of Maryland	Potomac River,	Potomac,	233.6 in Pa	
***MONONGAHELA RIVER,**	Allegheny,	Ohio River,	Monongahela,	7,340.0	455
MONROE CREEK,	Lebanon,	Swatara Creek,	Lower Main Susquehanna,	7.9	
***MONTGOMERY CREEK,**	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	15.6	458
MONTGOMERY CREEK, NORTH BRANCH	Clearfield,	Montgomery Creek,	Upper West Branch Susquehanna,	3.0	
MONTGOMERY CREEK, WEST BRANCH,	Clearfield,	Montgomery Creek,	Upper West Branch Susquehanna,	1.5	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
*MONTOUR RUN,	Allegheny,	Ohio River,	Main Ohio,	36.4	458
MONTOUR RUN,	Allegheny,	Pine Creek,	Lower Allegheny,	5.4	
MONTOUR RUN,	Columbia,	Fishing Creek,	Lower North Branch Susquehanna,	4.9	
MONTOUR RUN,	Perry,	Sherman Creek,	Lower Main Susquehanna,	11.3	
MONTOUR RUN, NORTH FORK,	Allegheny,	Montour Run,	Main Ohio,	2.4	
MONTOUR RUN, SOUTH FORK,	Allegheny,	Montour Run,	Main Ohio,	2.6	
MONUMENT RUN,	Clinton,	Beech Creek,	Middle West Branch Susquehanna,	1.4	
MOON RUN,	Allegheny,	Ohio River,	Main Ohio,	5.4	
MOON RUN,	Beaver,	Elkhorn Run,	Main Ohio,	2.4	
MOORE RUN,	Center,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	[illegible].1	
MOORE RUN,	Clarion,	Paint Creek,	Middle Allegheny,	1.8	
MOORE (BIG) RUN,	Potter,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	18.2	
MOORE (LITTLE) RUN,	Potter	Big Moore Run,	Upper West Branch Susquehanna,	6.7	
*MOOSE CREEK,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	13.9	459
MOOSE (LOWER) CREEK,	Clearfield,	Moose Creek,	Upper West Branch Susquehanna,	2.0	
MOOSE (UPPER) CREEK,	Clearfield,	Moose Creek,	Upper West Branch Susquehanna,	9.0	
MOOSE RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	2.4	
MORAVIAN RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	1.8	
MORAVIAN RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	17.1	
MORGAN CREEK,	Berks,	Beaver Run,	Middle Delaware,	4.4	
MORGAN RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	15.1	
MORGAN RUN,	Clearfield,	Upper North Branch Clearfield Creek,	Upper West Branch Susquehanna,	5.2	
MORGANS RUN,	Schuylkill,	Schuylkill River,	Lower Delaware,	1.0	
MORRIS RUN,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	4.5	
MORRISON RUN,	Mercer,	Little Shenango River,	Main Ohio,	5.1	
MORRISON RUN,	Warren,	Browns Run	Upper Allegheny,	6.7	
MORSE RUN,	Warren,	Allegheny River,	Upper Allegheny,	4.6	
MOSEN CREEK,	Sullivan,	Lewis Creek,	Lower West Branch Susquehanna,	2.6	
MOSEY RUN,	Crawford,	Oil Creek,	Upper Allegheny,	8.2	
*MOSHANNON CREEK,	Center and Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	288.1	460
*MOSHANNON (LITTLE) CREEK,	Center,	Moshannon Creek,	Upper West Branch Susquehanna,	55.6	460
*MOSQUITO CREEK,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	63.7	461
MOSQUITO RUN,	Center,	Dry Run,	Middle West Branch Susquehanna,	0.9	
*MOSQUITO RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	13.0	462
*MOSS CREEK,	Cambria,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	7.7	462
MOSS VALLEY RUN,	Schuylkill,	Schuylkill River,	Lower Delaware,	1.9	
*MOUNTAIN BRANCH,	Center,	Moshannon Creek,	Upper West Branch Susquehanna,	13.5	463
MOUNTAIN BRANCH,	Clearfield,	Sandy Lick Creek,	Middle Allegheny,	12.6	
*MOUNTAIN CREEK,	Cumberland,	Yellow Breeches Creek,	Lower Main Susquehanna,	49.4	463
MOUNTAIN CREEK,	Fayette,	George Creek,	Monongahela,	17.0	
MOUNTAIN CREEK, SOUTH FORK,	Fayette,	Mountain Creek,	Monongahela,	6.7	
MOUNTAIN RUN,	Clearfield,	Bennett Branch,	Upper West Branch Susquehanna,	7.7	
MT. PHOEBE RUN,	Greene,	Dyers Fork,	Monongahela,	1.6	
*MOUNTS CREEK,	Fayette,	Youghiogheny River,	Monongahela,	32.7	464

MOUSE CREEK,	Northumberland.	Schwaben Creek,	Middle Main Susquehanna,	7.1	
MOWRY RUN,	Clearfield.	West Branch Susquehanna River,	Upper West Branch Susquehanna,	2.1	
MOYER MILL RUN,	Snyder.	North Branch Middle Creek,	Middle Main Susquehanna,	3.2	
MUD BROOK,	Wayne.	Middle Creek,	Upper Delaware,	5.8	
MUD CREEK,	Bradford.	Sugar Creek,	Upper North Branch Susquehanna,	6.4	
MUD CREEK,	Bradford.	Wappasening Creek,	Upper North Branch Susquehanna,	1.7	
MUD CREEK,	Montour.	Chillisquaque Creek,	Lower West Branch Susquehanna,	16.7	
MUD RUN,	Bedford.	Scrubgrass Creek,	Upper Juniata,	4.3	
MUD RUN,	Cambria.	Laurel Run,	Lower Allegheny,	2.6	
•MUD RUN,	Carbon.	Lehigh River,	Middle Delaware,	35.9	465
MUD RUN,	Crawford.	Little Sugar Creek,	Upper Allegheny,	4.7	
MUD RUN,	Northampton.	Delaware River,	Upper Delaware,	5.9	
MUD RUN,	Schuylkill.	Mill Creek,	Lower Delaware,	3.0	
MUD RUN,	Schuylkill.	Tomhicken Creek,	Lower North Branch Susquehanna,	3.7	
MUD RUN,	York.	Bermudian Creek,	Lower Main Susquehanna,	12.4	
MUDDY BRANCH,	Schuylkill.	West-West Branch Schuylkill River,	Lower Delaware,	4.5	
MUDDY BROOK,	Potter.	Genesee River,	Genesee,	5.7 in Pa.	
•MUDDY CREEK,	Crawford.	French Creek,	Upper Allegheny,	83.1	465
•MUDDY CREEK,	Greene.	Monongahela River,	Monongahela,	32.0	466
•MUDDY CREEK,	Lancaster.	Conestoga Creek,	Lower Main Susquehanna,	50.7	467
•MUDDY CREEK,	Lawrence.	Slippery Rock Creek,	Main Ohio,	58.5	467
MUDDY CREEK,	York.	Gunpowder Falls,	Lower Main Susquehanna,	0.9 in Pa.	
•MUDDY CREEK,	York.	Susquehanna River,	Lower Main Susquehanna,	138.7	468
•MUDDY CREEK, NORTH BRANCH,	York.	Muddy Creek,	Lower Main Susquehanna,	44.0	468
MUDDY CREEK, SOUTH BRANCH,	Greene.	Muddy Creek,	Monongahela,	7.3	
•MUDDY CREEK, SOUTH BRANCH,	York.	Muddy Creek,	Lower Main Susquehanna,	28.0	469
MUDDY (LITTLE) CREEK,	Lancaster.	Muddy Creek,	Lower Main Susquehanna,	15.3	
MUDDY RUN,	Adams.	Middle Creek,	Potomac,	6.8	
MUDDY RUN,	Center.	Penns Creek,	Middle Main Susquehanna,	14.7	
MUDDY RUN,	Chester.	East Branch Octoraro Creek,	Lower Main Susquehanna,	14.9	
•MUDDY RUN,	Clearfield.	Clearfield Creek,	Upper West Branch Susquehanna,	30.6	469
MUDDY RUN,	Crawford.	Lake Creek,	Upper Allegheny,	0.7	
MUDDY RUN,	Fayette.	George Creek,	Monongahela,	5.9	
MUDDY RUN,	Franklin	Conococheague Creek,	Potomac,	21.8	
MUDDY RUN,	Huntingdon	Laurel Run,	Upper Juniata,	2.7	
MUDDY RUN,	Indiana.	Blacklick Creek,	Lower Allegheny,	7.5	
MUDDY RUN,	Lancaster.	Mill Creek,	Lower Main Susquehanna,	8.8	
MUDDY RUN,	Lancaster.	Susquehanna River,	Lower Main Susquehanna,	9.4	
MUDDY RUN,	Northumberland.	West Branch Susquehanna River,	Lower West Branch Susquehanna,	10.4	
MUDDY RUN (or WARDEN RUN),	Venango.	Sugar Creek,	Upper Allegheny,	10.0	
MUDDY (LITTLE) RUN,	Clearfield.	Muddy Run,	Upper West Branch Susquehanna,	16.0	
MUDDY (LITTLE) RUN, EAST BRANCH,	Clearfield.	Little Muddy Run,	Upper West Branch Susquehanna,	2.6	
MUDLICK BRANCH,	Clinton.	West Branch Young Womans Creek,	Middle West Branch Susquehanna,	1.9	
MUDLICK CREEK,	Armstrong	Pine Run,	Middle Allegheny,	3.7	
MUDLICK (LITTLE) CREEK,	Armstrong.	Mahoning Creek,	Middle Allegheny,	4.5	
MUDLICK FORK,	Greene.	South Fork Dunkard Fork,	Main Ohio,	7.3	
MUDLICK RUN,	Center.	Bald Eagle Creek,	Middle West Branch Susquehanna,	1.5	
MUDLICK RUN,	Forest.	The Branch Salmon Creek,	Upper Allegheny,	0.4	
MUDLICK RUN,	Indiana.	Little Mahoning Creek,	Middle Allegheny,	6.1	
MUDLICK RUN,	Indiana.	South Branch Plum Creek,	Middle Allegheny,	1.5	
MUDLICK RUN,	McKean.	Kinzua Creek,	Upper Allegheny,	3.6	
MUDLICK RUN,	McKean.	South Branch Kinzua Creek,	Upper Allegheny,	0.9	
MUD POND RUN,	Pike.	Wallenpaupack Creek,	Upper Delaware,	2.1	
MUGSER RUN,	Columbia.	South Branch Roaring Creek,	Lower North Branch Susquehanna,	12.0	
MULEY RUN,	Cameron.	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	8.8	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
MULLIGAN RUN,	Butler.	Little Connoquenessing Creek.	Main Ohio.	6.5	
MUNCKINIPATTUS CREEK,	Delaware.	Darby Creek,	Lower Delaware.	4.6	
•MUNCY CREEK,	Lycoming.	West Branch Susquehanna River.	Lower West Branch Susquehanna,	216.3	470
•MUNCY (LITTLE) CREEK,	Lycoming.	Muncy Creek,	Lower West Branch Susquehanna,	84.0	471
MUNTZ RUN,	Butler.	Connoquenessing Creek,	Main Ohio	1.9	
MURRAY RUN,	Huntingdon.	Standing Stone Creek,	Upper Juniata.	8.9	
MURRAY RUN,	Lycoming.	Wallis Run,	Lower West Branch Susquehanna,	6.7	
MUSKRAT RUN,	Venango.	Allegheny River,	Upper Allegheny,	4.3	
NAAMAN CREEK,	Delaware.	Delaware River,	Lower Delaware,	13.7	
NAAMAN CREEK, EAST BRANCH,	Delaware.	Naaman Creek,	Lower Delaware,	4.3	
NAAMAN CREEK, WEST BRANCH,	Delaware.	Naaman Creek,	Lower Delaware,	1.9	
NANCY RUN,	Northampton.	Lehigh River,	Middle Delaware,	2.8	
NANTICOKE CREEK,	Luzerne.	Newport Creek,	Lower North Branch Susquehanna,	8.0	
NARIGAN RUN,	Washington.	Buffalo Creek,	Main Ohio	1.8	
NARROWS RUN,	Allegheny.	Ohio River,	Main Ohio	2.3	
NAUVOO HOLLOW CREEK (or DOWNERS RUN).	Fayette.	Monongahela River.	Monongahela.	6.5	
NAYLOR CREEK,	Delaware.	Cobbs Creek,	Lower Delaware,	4.7	
NEAL RUN,	Indiana.	Reeds Run,	Lower Allegheny,	3.1	
NEAL RUN,	Warren.	Spring Creek,	Upper Allegheny,	2.4	
NEGRO GLADE RUN,	Somerset.	Casselman River,	Monongahela.	12.7	
NEGRO HOLLOW RUN,	Schuylkill.	Messers Run	Lower North Branch Susquehanna,	2.3	
NEGUS RUN,	Crawford.	Oil Creek,	Upper Allegheny,	11.9	
NEIFERT CREEK,	Schuylkill.	Little Schuylkill River,	Lower Delaware.	3.2	
NEILL RUN,	York.	Fishing Creek.	Lower Main Susquehanna,	5.7	
NELSON BRANCH,	Potter.	Hammersley Fork,	Middle West Branch Susquehanna,	15.2	
NELSON RUN,	McKean.	Sugar Run,	Upper Allegheny,	5.6	
NELSON RUN,	Potter.	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	2.3	
•NESCOPECK CREEK,	Columbia.	North Branch Susquehanna River,	Lower North Branch Susquehanna,	172.9	471
NESCOPECK (LITTLE) CREEK,	Luzerne.	Nescopeck Creek,	Lower North Branch Susquehanna,	14.9	
•NESHAMINY CREEK,	Bucks.	Delaware River,	Middle Delaware,	236.5	472
•NESHAMINY CREEK, NORTH BRANCH,	Bucks.	Neshaminy Creek,	Middle Delaware,	32.1	473
•NESHAMINY CREEK, WEST BRANCH,	Bucks.	Neshaminy Creek,	Middle Delaware,	26.1	474
•NESHAMINY (LITTLE) CREEK,	Bucks.	Neshaminy Creek,	Middle Delaware,	43.1	474
•NESHANNOCK CREEK,	Lawrence.	Shenango River,	Main Ohio,	244.5	475
•NESHANNOCK (LITTLE) CREEK,	Lawrence.	Neshannock Creek,	Main Ohio,	51.2	476
NESHANNOCK (LITTLE) CREEK, WEST BRANCH	Mercer.	Little Neshannock Creek,	Main Ohio,	18.2	
•NESQUEHONING CREEK,	Carbon.	Lehigh River,	Middle Delaware,	23.8	476
NEWBURG RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	6.8	
NEWEL CREEK,	McKean.	Allegheny River,	Upper Allegheny,	8.3	
NEW ENGLAND RUN,	Dauphin.	Armstrong Creek,	Middle Main Susquehanna,	2.3	
NEW HAVEN RUN,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	17.6	
•NEWPORT CREEK,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	22.4	477
NEWTON CREEK,	Lackawanna,	Fall Brook,	Lower North Branch Susquehanna,	4.4	
NEWTOWN CREEK,	Bucks,	Neshaminy Creek,	Middle Delaware,	6.2	

NICELY RUN,	Jefferson,	Mahoning Creek,	Middle Allegheny,	1.4	
NICHECRONK BROOK,	Pike,	Dingmans Creek,	Upper Delaware,	1.5	
NICHOLS RUN,	Jefferson,	Hetrick Run,	Middle Allegheny,	1.3	
NICHOLSON RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	6.8	
NICHOLSON RUN,	Venango,	Sandy Creek,	Upper Allegheny,	3.2	
NICKEL MINES RUN,	Lancaster,	West Branch Octoraro Creek,	Lower Main Susquehanna,	4.7	
NILES HOLLOW,	Potter,	Allegheny River,	Upper Allegheny,	0.8	
NINEMILE RUN,	Allegheny,	Monongahela River,	Monongahela,	7.4	
NINEMILE RUN,	Fulton,	Little Aughwick Creek,	Lower Juniata,	1.9	
NINEMILE RUN,	Potter,	Cushing Creek,	Middle West Branch Susquehanna,	12.5	
•NINEMILE RUN,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	20.6	478
NINE O'CLOCK BRANCH,	Dauphin,	East Branch Rattling Creek,	Middle Main Susquehanna,	2.7	
NINE PARTNERS CREEK,	Susquehanna,	Butler Creek,	Upper North Branch Susquehanna,	16.6	
•NIPPENOSE CREEK,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	58.2	479
NORCROSS RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	3.7	
NORRIS BRANCH,	Clearfield,	Hogback Run,	Upper West Branch Susquehanna,	1.6	
NORRIS BROOK,	Tioga,	Catlin Hollow Run,	Upper North Branch Susquehanna,	10.8	
NORTH BRANCH OR FORK (See name of main stream).					
NORTH BROOK,	Tioga,	Troups Creek,	Upper North Branch Susquehanna,	4.2 in Pa.	
NORTH CREEK,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	16.9	
NORTH PRONG,	Washington,	Castleman Run,	Main Ohio,	1.4	
NORTH RUN,	Cameron,	North Creek,	Upper West Branch Susquehanna,	2.2	
NORTH RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	0.9	
NORTH RUN,	Perry,	Laurel Run,	Lower Main Susquehanna,	1.0	
NORTH RUN,	Tioga,	Crooked Creek,	Upper North Branch Susquehanna,	5.6	
NORTH (See also significant name).					
NORTHEAST BRANCH (See name of main stream).					
NORTHEAST CREEK,	Chester,	Northeast River,	Lower Main Susquehanna,	7.5 in Pa.	
NORTHEAST (LITTLE) CREEK,	Chester,	Northeast Creek,	Lower Main Susquehanna,	0.4 in Pa.	
NORTHEAST RIVER,	State of Maryland,	Chesapeake Bay,	Lower Main Susquehanna,	7.5 in Pa.	
•NORTHKILL CREEK,	Berks,	Tulpehocken Creek,	Lower Delaware,	42.3	479
NORTHKILL (LITTLE) CREEK,	Berks,	Northkill Creek,	Lower Delaware,	21.3	
NORTH MOUNTAIN RUN (or TOWNSHIP RUN),	Franklin,	West Branch Conococheague Creek,	Potomac,	2.9	
NORTHWEST BRANCH (See name of main stream).					
NORWEGIAN CREEK,	Schuylkill,	Schuylkill River,	Lower Delaware,	6.8	
NORWEGIAN CREEK, EAST BRANCH,	Schuylkill,	Norwegian Creek,	Lower Delaware,	2.5	
NORWEGIAN CREEK, WEST BRANCH,	Schuylkill,	Norwegian Creek,	Lower Delaware,	2.9	
NUNNERY CREEK,	Franklin,	West Branch Little Antietam Creek,	Potomac,	2.9	
NYE BRANCH,	Armstrong,	Pine Run,	Middle Allegheny,	4.4	
OAK RUN,	Fulton,	Great Tonoloway Creek,	Potomac,	1.7	
OAK RUN,	Lackawanna,	Roaring Brook,	Lower North Branch Susquehanna,	4.9	
OAKLAND RUN,	York	Susquehanna River,	Lower Main Susquehanna,	3.3	
OBERT CREEK,	Sullivan,	Pigeon Creek,	Lower West Branch Susquehanna,	3.4	
•OCTORARO CREEK,	Chester and Lancaster,	Susquehanna River,	Lower Main Susquehanna,	210.2	480
•OCTORARO CREEK, EAST BRANCH,	Chester and Lancaster,	Octoraro Creek,	Lower Main Susquehanna,	90.4	480
•OCTORARO CREEK, WEST BRANCH,	Lancaster,	Octoraro Creek,	Lower Main Susquehanna,	48.4	481
OGDONIA CREEK,	Sullivan,	Kettle Creek,	Lower West Branch Susquehanna,	6.5	
•OHIO RIVER,	Beaver,	Mississippi River,	Ohio,	15,571.0 in Pa.	482

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
McDONALD RUN,	Clinton,	Bald Eagle Creek,	Middle West Branch Susquehanna,	3.6	
McDOWELL RUN (or HOWE RUN),	Allegheny,	Bull Creek,	Lower Allegheny,	4.0	
•McELHATTON CREEK,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	19.7	419
McELROY RUN,	Beaver,	South Branch Brady Run,	Main Ohio,	1.5	
McGARVEY RUN,	Blair,	Burgoon Run,	Upper Juniata,	1.1	
McGEE RUN,	Crawford,	Caldwell Creek,	Upper Allegheny,	2.2	
McGEE RUN,	Warren,	Allegheny River,	Upper Allegheny,	1.0	
•McGEE RUN,	Westmoreland,	Conemaugh River,	Lower Allegheny,	26.1	420
McGINNESS RUN,	Westmoreland,	Jacobs Creek,	Monongahela,	6.3	
McGINNIS RUN (or WEELER RUN),	Schuylkill,	West Branch Schuylkill River,	Lower Delaware,	1.2	
McGRANNAHAN RUN,	Crawford,	Shenango River,	Main Ohio,	3.9	
McGUIRES RUN,	Warren,	Allegheny River,	Upper Allegheny,	6.3	
McINTIRE RUN,	Fayette,	Big Sandy Creek,	Monongahela,	3.4	
McKEE RUN,	Fulton,	Great Tonoloway Creek,	Potomac,	13.9	
•McKEE RUN,	Indiana,	Crooked Creek,	Middle Allegheny,	14.0	421
McKEE RUN,	Jefferson,	Big Run,	Middle Allegheny,	3.4	
McKEE RUN,	Lawrence,	Beaver River,	Main Ohio,	6.1	
McKEE RUN,	Lycoming,	Little Pine Creek,	Middle West Branch Susquehanna,	1.5	
McKEES CREEK,	Perry,	Little Buffalo Creek,	Lower Juniata,	2.0	
McKEES RUN,	Northumberland,	Susquehanna River,	Middle Main Susquehanna,	2.4	
McKEES HALF FALL RUN,	Northumberland,	McKees Run,	Middle Main Susquehanna,	0.5	
McKINLEY RUN,	Venango,	Scrubgrass Creek,	Upper Allegheny,	3.3	
McLAUGHLIN CREEK (or BOGG CREEK),	Crawford,	Thompson Run,	Upper Allegheny,	10.3	
McLAUGHLIN RUN,	Allegheny,	Chartiers Creek,	Main Ohio,	7.2	
McLAUGHLIN RUN,	Beaver,	Upper Dry Run,	Main Ohio,	1.3	
McMAHON RUN,	Venango,	Allegheny River,	Upper Allegheny,	0.5	
McMASTERS RUN,	Clearfield,	Wilson Run,	Upper West Branch Susquehanna,	1.2	
McMICHAEL CREEK,	Crawford,	Shenango River,	Main Ohio,	8.0	
McMICHAEL RUN,	Crawford,	Conneaut Lake Creek,	Upper Allegheny,	7.0	
•McMICHAELS CREEK,	Monroe,	Brodheads Creek,	Upper Delaware,	106.6	421
McMILAN RUN,	Westmoreland,	Laughlintown Run,	Lower Allegheny,	3.2	
McMURRAY RUN,	Butler,	Slippery Rock Creek,	Main Ohio,	13.1	
McPHERSON CREEK,	Washington,	Chartiers Creek,	Main Ohio,	2.8	
McREA RUN,	Venango,	Allegheny River,	Upper Allegheny,	3.2	
McSHERRY RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	9.0	
MACKEY RUN,	Crawford,	Muddy Creek,	Upper Allegheny,	15.8	
MACOBY CREEK,	Montgomery,	Perkiomen Creek,	Lower Delaware,	17.6	
MADDEN RUN,	Beaver,	North Fork Little Beaver River,	Main Ohio,	2.5	
MAGEE RUN,	Warren,	Allegheny River,	Upper Allegheny,	0.6	
•MAHANOY CREEK,	Northumberland,	Susquehanna River,	Middle Main Susquehanna,	165.5	422
MAHANOY CREEK, NORTH BRANCH,	Schuylkill,	Mahanoy Creek,	Middle Main Susquehanna,	5.1	
MAHANOY (LITTLE) CREEK,	Schuylkill,	Mahanoy Creek,	Middle Main Susquehanna,	10.5	
•MAHANTANGO CREEK,	Dauphin and Northumberland,	Susquehanna River,	Middle Main Susquehanna,	164.6	423
•MAHANTANGO CREEK,	Juniata and Snyder,	Susquehanna River,	Middle Main Susquehanna,	85.3	424
•MAHANTANGO CREEK, NORTH BRANCH	Snyder,	Mahantango Creek,	Middle Main Susquehanna,	36.3	425

*MAHANTANGO CREEK, WEST BRANCH,	Juniata and Snyder,	Mahantango Creek,	Middle Main Susquehanna,	47.4	424
MAHANTANGO (LITTLE) CREEK,	Schuylkill,	Mahantango Creek,	Middle Main Susquehanna,	15.4	
*MAHONING CREEK,	Armstrong,	Allegheny River,	Middle Allegheny,	424.4	425
*MAHONING CREEK,	Carbon,	Lehigh River,	Middle Delaware,	37.3	426
*MAHONING CREEK,	Montour,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	39.5	427
*MAHONING CREEK, EAST BRANCH,	Jefferson,	Mahoning Creek,	Middle Allegheny,	42.9	428
*MAHONING (LITTLE) CREEK,	Indiana,	Mahoning Creek,	Middle Allegheny,	81.0	428
MAHONING (LITTLE) CREEK, NORTH BRANCH,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	14.5	
*MAHONING RIVER,	Lawrence,	Beaver River,	Main Ohio	1,099.4	429
*MAIDEN CREEK,	Berks,	Schuylkill River,	Lower Delaware,	215.8	430
MAIN BRANCH (See name of main stream)					
MALLHEAD CREEK,	Berks,	Northkill Creek,	Lower Delaware,	4.7	
*MANADA CREEK,	Dauphin,	Swatara Creek,	Lower Main Susquehanna,	31.9	431
*MANATAWNY CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	90.4	431
*MANATAWNY (LITTLE) CREEK,	Berks,	Manatawny Creek,	Lower Delaware,	35.8	432
MANHATTAN CREEK,	York,	Susquehanna River,	Lower Main Susquehanna,	4.0	
MANNER RUN,	Lycoming,	Slate Run,	Middle West Branch Susquehanna,	1.1	
MANNS CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	3.3	
MANNS RUN,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	0.7	
MAPLE BROOK,	Pike,	Rattlesnake Brook,	Upper Delaware,	0.6	
MAPLE CREEK,	Forest,	Clarion River)	Middle Allegheny,	21.0	
MAPLE CREEK,	Luzerne,	Kitchen Creek,	Lower North Branch Susquehanna,	3.9	
MAPLE CREEK,	Washington,	Monongahela River,	Monongahela,	10.4	
MAPLE CREEK, SOUTH BRANCH,	Washington,	Maple Creek,	Monongahela,	5.7	
MAPLEPOLE RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	1.0	
MARANDA RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	2.1	
MARCUS HOOK CREEK,	Delaware,	Delaware River,	Lower Delaware,	5.5	
MARDIS RUN,	Indiana,	Blacklick Creek,	Lower Allegheny,	6.0	
MARGARET RUN,	Lycoming,	Carpenter Run,	Lower West Branch Susquehanna,	3.2	
MARILLA CREEK,	McKean	West Branch Tunungwant Creek,	Upper Allegheny,	11.6	
*MARK RUN (or WARRIORS RUN),	Huntingdon,	Spruce Creek,	Upper Juniata;	33.3	637
MARROWBONE RUN,	Armstrong,	Buffalo Creek,	Lower Allegheny,	3.2	
*MARSH CREEK,	Adams,	Monocacy River,	Potomac,	79.4	433
*MARSH CREEK,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	45.8	434
MARSH CREEK,	Chester,	East Branch Brandywine Creek,	Lower Delaware,	20.4	
MARSH CREEK,	Sullivan,	Little Loyalsock Creek,	Lower West Branch Susquehanna,	3.3	
*MARSH CREEK,	Tioga,	Pine Creek,	Middle West Branch Susquehanna,	77.7	434
MARSH CREEK,	Wyoming,	Bowman Creek,	Upper North Branch Susquehanna,	10.2	
MARSH (LITTLE) CREEK,	Adams,	Marsh Creek,	Potomac,	21.1	
MARSH RUN,	Erie,	Conneaut Creek,	Erie,	4.8	
MARSH RUN,	Franklin,	Little Antietam Creek,	Potomac,	18.4 in Pa.	
MARSH RUN,	Indiana,	Whites Run,	Lower Allegheny	2.4	
MARSH RUN,	York,	Susquehanna River,	Lower Main Susquehanna,	2.8	
MARSH (LITTLE) RUN,	Lycoming,	Beaverdam Run,	Lower West Branch Susquehanna,	0.7	
*MARSHALL CREEK,	Monroe,	Brodheads Creek,	Upper Delaware,	33.7	435
MARSHALL RUN,	Indiana,	Blacklegs Creek,	Lower Allegheny,	4.2	
*MARTIN CREEK,	Wyoming,	Tunkhannock Creek,	Upper North Branch Susquehanna,	57.5	435
MARTIN HOLLOW,	Washington,	Harmon Creek,	Main Ohio	1.9	
MARTIN RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	1.2	
MARTIN RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	0.9	
*MARTINS CREEK,	Northampton,	Delaware River,	Upper Delaware,	46.7	436
MARTINS CREEK, EAST FORK,	Northampton,	Martins Creek,	Upper Delaware,	2.3	
MARTINS CREEK, WEST FORK,	Northampton,	Martins Creek,	Upper Delaware,	3.3	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
MARTINS (LITTLE) CREEK,	Northampton,	Martins Creek,	Upper Delaware,	6.3	
MARTINS RUN,	Lycoming,	West Mill Creek,	Lower West Branch Susquehanna,	0.7	
*MARVIN CREEK,	McKean,	Potato Creek,	Upper Allegheny,	58.3	437
MARVIN CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	8.3	
MASON RUN,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	1.6	
*MAST HOPE CREEK,	Pike,	Delaware River,	Upper Delaware,	29.9	437
MATSUNK CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	0.7	
MATTHEWS RUN,	Warren,	Brokenstraw Creek,	Upper Allegheny,	15.7	
MAUCH CHUNK CREEK,	Carbon,	Lehigh River,	Middle Delaware,	8.9	
MAXWELL RUN,	Elk,	Clarion River,	Middle Allegheny,	9.6	
MAYHOOD RUN,	Elk,	Clarion River,	Middle Allegheny,	2.9	
MAYS RUN (or PINE HILL RUN),	Venango,	Allegheny River,	Upper Allegheny,	3.7	
MEAD RUN,	Elk,	Little Toby Creek,	Middle Allegheny,	5.3	
MEAD RUN,	Warren,	Brokenstraw Creek,	Upper Allegheny,	5.0	
MEAD RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	0.8	
MEADE (LITTLE) RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	1.3	
MEAD-EDDY RUN,	Warren,	Kinzua Creek,	Upper Allegheny,	0.4	
MEADOW BROOK,	Delaware,	Ithan Creek,	Lower Delaware,	2.6	
MEADOW BROOK,	Montgomery,	Pennypack Creek,	Lower Delaware,	3.4	
MEADOW (BIG) CREEK,	Monroe,	Pocono Creek,	Upper Delaware,	1.8	
MEADOW RUN,	Fayette,	Monongahela River,	Monongahela,	1.6	
MEADOW RUN,	Greene,	Dunkard Creek,	Monongahela,	7.7	
MEADOW RUN,	Lancaster,	Cocalico Creek,	Lower Main Susquehanna,	1.1	
MEADOW RUN,	Somerset,	Casselman River,	Monongahela,	7.5	
MEADOW RUN,	Westmoreland,	Jacobs Creek,	Monongahela,	7.1	
*MEADOW (BIG) RUN,	Fayette,	Youghiogheny River,	Monongahela,	35.9	438
*MEANS RUN (or MIDDLE SPRING CREEK),	Cumberland and Franklin,	Conodoguinet Creek,	Lower Main Susquehanna,	50.3	438
*MEDIX RUN,	Elk,	Bennett Branch,	Upper West Branch Susquehanna,	30.8	439
MEEKER HOLLOW RUN,	Potter,	Pine Creek,	Middle West Branch Susquehanna,	3.6	
MEEKS RUN,	Allegheny,	Montour Run,	Main Ohio,	2.3	
MEETINGHOUSE CREEK,	Lancaster,	West Branch Octoraro Creek,	Lower Main Susquehanna,	5.5	
MEFFERT RUN,	Elk,	West Branch Clarion River,	Middle Allegheny,	3.4	
*MEHOOPANY CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	131.2	440
*MEHOOPANY CREEK, NORTH BRANCH,	Wyoming,	Mehoopany Creek,	Upper North Branch Susquehanna,	50.0	440
MEHOOPANY (LITTLE) CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	7.2	
*MESHOPPEN CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	117.9	441
*MESHOPPEN CREEK, WEST BRANCH (or WHITE CREEK),	Wyoming	Meshoppen Creek,	Upper North Branch Susquehanna,	27.9	442
*MESHOPPEN (LITTLE) CREEK,	Wyoming,	Meshoppen Creek,	Upper North Branch Susquehanna,	13.2	442
MESSENGER RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	0.8	
MESSERS RUN,	Schuylkill,	Catawissa Creek,	Lower North Branch Susquehanna,	7.6	
MIAM HOLLOW,	McKean,	Lewis Run,	Upper Allegheny,	1.2	
MICKLE RUN,	Tioga,	Babb Creek,	Middle West Branch Susquehanna,	3.5	
MIDDAUGH CREEK,	Bradford,	Wyalusing Creek,	Upper North Branch Susquehanna,	6.7	
MIDDLE BRANCH OR FORK (See name of main stream).					

*MIDDLE CREEK,	Adams,	Toms Creek,	Potomac,	24.2 in Pa.	443
*MIDDLE CREEK,	Lancaster,	Cocalico Creek,	Lower Main Susquehanna,	32.9	443
MIDDLE CREEK,	Monroe,	Pohopoco Creek,	Middle Delaware,	20.1	
MIDDLE CREEK,	Montgomery,	West Swamp Creek,	Lower Delaware,	4.2	
MIDDLE CREEK,	Schuylkill,	Good Spring Creek,	Lower Main Susquehanna,	6.6	
*MIDDLE CREEK,	Snyder,	Penns Creek,	Middle Main Susquehanna,	163.5	444
*MIDDLE CREEK,	Wayne,	Lackawaxen River,	Upper Delaware,	77.4	445
MIDDLE CREEK, NORTH BRANCH,	Snyder,	Middle Creek,	Middle Main Susquehanna,	19.9	
MIDDLE CREEK, SOUTH BRANCH,	Snyder,	Middle Creek,	Middle Main Susquehanna,	10.3	
MIDDLE RUN,	Cameron,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	4.7	
MIDDLE RUN,	Clarion,	Redbank Creek,	Middle Allegheny,	2.3	
MIDDLE RUN,	Clarion,	Redbank Creek,	Middle Allegheny,	2.0	
MIDDLE RUN,	Fayette,	Monongahela River,	Monongahela,	4.3	
MIDDLE (See also significant name).					
MILES RUN,	Center,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	8.5	
MILES RUN,	Delaware,	Darby Creek,	Lower Delaware,	0.2	
MILES RUN,	Warren,	Little Brokenstraw Creek,	Upper Allegheny,	6.7	
MILES RUN RUN,	Cumberland,	Thompsons Hollow,	Lower Main Susquehanna,	7.4	
MILL BRANCH,	York	Otter Creek,	Lower Main Susquehanna,	2.9	
MILL BROOK,	Bradford,	Mill Creek,	Upper North Branch Susquehanna,	2.9	
MILL BROOK,	Wyoming,	Tunkhannock Creek,	Upper North Branch Susquehanna,	14.3	
MILL CREEK,	Beaver,	Ohio River,	Main Ohio,	15.2	
*MILL CREEK,	Berks,	Sacony Creek,	Lower Delaware,	23.4	445
MILL CREEK,	Berks,	Schuylkill River,	Lower Delaware,	18.0	
MILL CREEK,	Berks,	Schuylkill River,	Lower Delaware,	3.3	
MILL CREEK,	Berks,	Tulpehocken Creek,	Lower Delaware,	16.0	
MILL CREEK,	Berks	Tulpehocken Creek,	Lower Delaware,	13.4	
MILL CREEK (or LITTLE WYSOX CREEK).	Bradford,	North Branch Susquehanna River	Upper North Branch Susquehanna,	10.6	
MILL CREEK,	Bradford,	Sugar Creek,	Upper North Branch Susquehanna,	14.9	
MILL CREEK,	Bradford,	Towanda Creek,	Upper North Branch Susquehanna,	9.4	
MILL CREEK,	Bucks,	Delaware River,	Middle Delaware,	21.7	
MILL CREEK,	Bucks,	Neshaminy Creek,	Middle Delaware,	22.1	
MILL CREEK,	Bucks,	Neshaminy Creek,	Middle Delaware,	17.2	
MILL CREEK,	Bucks	Northeast Branch Perkiomen Creek,	Lower Delaware,	4.7	
MILL CREEK,	Chester,	White Clay Creek,	Lower Delaware,	0.4 in Pa.	
*MILL CREEK,	Clarion,	Clarion River,	Middle Allegheny,	55.5	446
MILL CREEK,	Clarion,	Toby Creek,	Middle Allegheny,	3.8	
MILL CREEK,	Elk,	Elk Creek,	Middle Allegheny,	12.4	
MILL CREEK,	Erie	Lake Erie	Erie,	12.9	
*MILL CREEK,	Huntingdon,	Juniata River,	Lower Juniata,	39.2	447
*MILL CREEK,	Jefferson,	Sandy Lick Creek,	Middle Allegheny,	54.9	447
*MILL CREEK,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	56.5	448
MILL CREEK,	Lehigh,	Jordan Creek,	Middle Delaware,	9.6	
*MILL CREEK,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	36.8	448
MILL CREEK,	Lycoming,	Loyalsock Creek,	Lower West Branch Susquehanna,	20.7	
MILL CREEK,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	12.8	
MILL CREEK,	Mercer	Cool Spring Creek,	Main Ohio,	14.8	
MILL CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	8.1	
*MILL CREEK,	Potter	Allegheny River,	Upper Allegheny,	32.2	449
*MILL CREEK,	Schuylkill,	Schuylkill River,	Lower Delaware,	25.0	450
MILL CREEK,	Somerset,	Bens Creek,	Lower Allegheny,	6.5	
MILL CREEK,	Sullivan,	Lick Creek,	Lower West Branch Susquehanna,	5.8	
MILL CREEK,	Sullivan,	Little Loyalsock Creek,	Lower West Branch Susquehanna,	1.6	
*MILL CREEK,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	7.4	450

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
MILL CREEK,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	5.3	
MILL CREEK,	Tioga,	Cowanesque River,	Upper North Branch Susquehanna,	13.0	
MILL CREEK,	Tioga,	Lycoming Creek,	Lower West Branch Susquehanna,	12.6	
*MILL CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	77.2	451
MILL CREEK,	Venango,	Allegheny River,	Upper Allegheny,	15.5	
MILL CREEK,	Venango,	French Creek,	Upper Allegheny,	17.2	
MILL CREEK,	Wayne,	Wallenpaupack Creek,	Upper Delaware,	7.5	
MILL CREEK,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	21.1	
MILL CREEK,	York,	Codorus Creek,	Lower Main Susquehanna,	18.0	
MILL CREEK, MIDDLE FORK,	Westmoreland,	Mill Creek,	Lower Allegheny,	4.8	
MILL CREEK, SOUTH FORK,	Westmoreland,	Mill Creek,	Lower Allegheny,	2.7	
*MILL (BIG) CREEK,	Elk,	Clarion River,	Middle Allegheny,	28.8	452
MILL (EAST) CREEK,	Tioga,	Mill Creek,	Lower West Branch Susquehanna,	4.0	
MILL (LITTLE) CREEK,	Beaver,	Mill Creek,	Main Ohio,	3.3	
MILL (LITTLE) CREEK,	Clarion,	Mill Creek,	Middle Allegheny,	13.7	
MILL (LITTLE) CREEK,	Elk,	Clarion River,	Middle Allegheny,	14.8	
MILL (LITTLE) CREEK,	Jefferson,	Mill Creek,	Middle Allegheny,	10.8	
MILL (LITTLE) CREEK (or LIDY CREEK),	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	9.2	
MILL (WEST) CREEK,	Lycoming,	Loyalsock Creek,	Lower West Branch Susquehanna,	24.4	
MILL (WEST) CREEK,	Tioga,	Mill Creek,	Lower West Branch Susquehanna,	8.3	
MILL RUN,	Armstrong,	Cowanshannock Creek,	Middle Allegheny,	7.2	
MILL RUN,	Blair,	Beaverdam Branch Frankstown Branch,	Upper Juniata,	8.8	
MILL RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	2.2	
MILL RUN,	Clinton,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	8.7	
MILL RUN,	Crawford,	French Creek,	Upper Allegheny,	8.4	
MILL RUN,	Fayette,	Downers Run,	Monongahela,	1.5	
MILL RUN,	Fayette,	Youghiogheny River,	Monongahela,	7.6	
MILL RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	13.2	
MILL RUN,	Mercer,	Neshannock Creek,	Main Ohio,	4.5	
MILL RUN,	Mercer,	Sandy Creek,	Upper Allegheny,	3.2	
MILL RUN,	Somerset,	Youghiogheny River,	Monongahela	3.9 in Pa.	
MILL RUN,	Warren,	Jackson Run,	Upper Allegheny,	6.0	
MILL BROOK RUN,	Pike,	Wallenpaupack Creek,	Upper Delaware,	7.1	
MILLER RUN,	Bradford,	Bentley Creek,	Upper North Branch Susquehanna,	5.2	
MILLER RUN,	Clarion,	Redbank Creek,	Middle Allegheny,	0.6	
MILLER RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	0.9	
MILLER RUN,	Huntingdon,	Shoups Run,	Upper Juniata,	2.9	
MILLER RUN,	Indiana,	Aultmans Run,	Lower Allegheny,	2.1	
MILLER RUN,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	6.3	
MILLER RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	4.2	
MILLER RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	9.1	
MILLER RUN,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	3.6	
MILLERS CREEK (or TINKLEPAUGH CREEK),	**Lackawanna,**	**Wildcat Creek,**	**Lower North Branch Susquehanna,**	**3.9**	

*MILLERS RUN,	Allegheny,	Chartiers Creek,	Main Ohio,	28.6		452
MILLERS RUN,	Lancaster,	Swarr Run,	Lower Main Susquehanna,	1.3		
MILLERS RUN,	York,	Yellow Breeches Creek,	Lower Main Susquehanna,	0.5		
MILL HOPPER CREEK,	Luzerne,	Sandy Run,	Middle Delaware,	0.9		
MILLIGAN RUN,	Blair,	Tipton Run,	Upper Juniata,	1.0		
MILLIGAN RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	3.4		
MILLIRON RUN,	Jefferson,	Little Sandy Creek,	Middle Allegheny,	1.9		
*MILLSTONE CREEK,	Elk,	Clarion River,	Middle Allegheny,	61.4		453
MILLSTONE (EAST) CREEK,	Elk,	Millstone Creek,	Middle Allegheny,	22.8		
MILLSTONE RUN,	Bradford,	Shrader Branch,	Upper North Branch Susquehanna,	10.5		
MILLSTONE RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	4.3		
MILLWOOD RUN,	Westmoreland,	McGee Run,	Lower Allegheny,	2.2		
MINARD RUN,	McKean,	East Branch Tuneungwant Creek,	Upper Allegheny,	10.5		
MINE RUN,	Luzerne,	Grim Run,	Lower North Branch Susquehanna,	0.3		
MINE RUN,	Montgomery,	Perkiomen Creek,	Lower Delaware,	2.6		
MINE RUN,	Schuylkill,	Mahanoy Creek,	Middle Main Susquehanna,	3.8		
MINEHART RUN,	Mifflin,	Juniata River,	Lower Juniata,	1.9		
MINERAL RUN,	Allegheny,	Lick Run,	Monongahela,	0.8		
MINERAL RUN,	Clarion,	Licking Creek,	Middle Allegheny,	2.0		
MINEY BRANCH,	Adams,	Toms Creek,	Potomac,	8.8		
MINGO CREEK,	Philadelphia,	Schuylkill River,	Lower Delaware,	....		
MINGO CREEK,	Washington,	Monongahela River,	Monongahela,	21.6		
MINGO RUN,	Montgomery,	Schuylkill River,	Lower Delaware,	7.4		
MINISTER CREEK,	Forest,	Tionesta Creek,	Upper Allegheny,	11.1		
MINISTER RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	2.2		
MINISTERS CREEK,	Montgomery,	West Swamp Creek,	Lower Delaware,	7.8		
MINK RUN,	Bucks,	Tohickon Creek,	Middle Delaware,	2.1		
MINNIS RUN,	Mercer,	Crooked Creek,	Main Ohio,	2.0		
MINNOW RUN,	Fayette,	Monongahela River,	Monongahela,	1.5		
MITCHELL CREEK,	Bradford,	Tom Jack Creek,	Upper North Branch Susquehanna,	2.6		
MITCHELL CREEK,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	9.3		
MITCHELL CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	10.1		
MITCHELL RUN,	Indiana,	Crooked Creek,	Middle Allegheny,	3.2		
*MIX RUN,	Cameron,	Bennett Branch,	Upper West Branch Susquehanna,	36.6		453
MIX RUN,	Jefferson,	Solater Run,	Middle Allegheny,	3.6		
MIX RUN,	Warren,	Wildcat Run,	Upper Allegheny,	1.6		
MIXSELL CREEK,	Monroe,	Princess Creek,	Middle Delaware,	11.8		
MOCCASIN RUN,	Clinton,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	7.2		
MOHAN RUN,	Elk,	Elk Creek,	Middle Allegheny,	6.2		
MOHANNON CREEK (or SILFIS RUN),	Schuylkill,	Schuylkill River,	Lower Delaware,	11.1		
MOHAWK RUN,	Crawford,	French Creek,	Upper Allegheny,	3.9		
MOHLER RUN,	Lancaster,	Cocalico Creek,	Lower Main Susquehanna,	0.8		
MOLASSES CREEK,	Bucks,	East Swamp Creek,	Lower Delaware,	3.9		
MONASTERY RUN,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny	12.3		
*MONOCACY CREEK,	Berks,	Schuylkill River,	Lower Delaware,	25.5		454
*MONOCACY CREEK,	Lehigh and Northampton,	Lehigh River,	Middle Delaware,	49.6		455
MONOCACY CREEK, EAST BRANCH,	Northampton,	Monocacy Creek,	Middle Delaware,	16.9		
MONOCACY RIVER,	State of Maryland	Potomac River,	Potomac,	233.6	in Pa.	
*MONONGAHELA RIVER,	Allegheny,	Ohio River,	Monongahela,	7,340.0		455
MONROE CREEK	Lebanon,	Swatara Creek,	Lower Main Susquehanna,	7.9		
*MONTGOMERY CREEK,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	15.6		458
MONTGOMERY CREEK, NORTH BRANCH	Clearfield,	Montgomery Creek,	Upper West Branch Susquehanna,	3.0		
MONTGOMERY CREEK, WEST BRANCH,	Clearfield,	Montgomery Creek,	Upper West Branch Susquehanna,	1.5		

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•MONTOUR RUN,	Allegheny,	Ohio River,	Main Ohio,	36.4	458
MONTOUR RUN,	Allegheny,	Pine Creek,	Lower Allegheny,	5.4	
MONTOUR RUN,	Columbia,	Fishing Creek,	Lower North Branch Susquehanna,	4.9	
MONTOUR RUN,	Perry,	Sherman Creek,	Lower Main Susquehanna,	11.3	
MONTOUR RUN, NORTH FORK,	Allegheny,	Montour Run,	Main Ohio,	2.4	
MONTOUR RUN, SOUTH FORK,	Allegheny,	Montour Run,	Main Ohio,	2.6	
MONUMENT RUN,	Clinton,	Beech Creek,	Middle West Branch Susquehanna,	1.4	
MOON RUN,	Allegheny,	Ohio River,	Main Ohio,	5.4	
MOON RUN,	Beaver,	Elkhorn Run,	Main Ohio,	3.4	
MOORE RUN,	Center,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	[illegible]	
MOORE RUN,	Clarion,	Paint Creek,	Middle Allegheny,	1.8	
MOORE (BIG) RUN,	Potter,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	18.2	
MOORE (LITTLE) RUN,	Potter	Big Moore Run,	Upper West Branch Susquehanna,	6.7	
•MOOSE CREEK,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	13.9	459
MOOSE (LOWER) CREEK,	Clearfield,	Moose Creek,	Upper West Branch Susquehanna,	2.0	
MOOSE (UPPER) CREEK,	Clearfield,	Moose Creek,	Upper West Branch Susquehanna,	9.0	
MOOSE RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	2.4	
MORAVIAN RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	1.8	
MORAVIAN RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	17.1	
MORGAN CREEK,	Bucks,	Beaver Run,	Middle Delaware,	4.4	
MORGAN RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	15.1	
MORGAN RUN,	Clearfield,	Upper North Branch Clearfield Creek,	Upper West Branch Susquehanna,	5.2	
MORGANS RUN,	Schuylkill,	Schuylkill River,	Lower Delaware,	1.0	
MORRIS RUN,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	4.5	
MORRISON RUN,	Mercer,	Little Shenango River,	Main Ohio,	5.1	
MORRISON RUN,	Warren,	Browns Run	Upper Allegheny,	6.7	
MORSE RUN,	Warren,	Allegheny River,	Upper Allegheny,	4.6	
MOSEN CREEK,	Sullivan,	Lewis Creek,	Lower West Branch Susquehanna,	2.6	
MOSEY RUN,	Crawford,	Oil Creek,	Upper Allegheny,	8.2	
•MOSHANNON CREEK,	Center and Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	288.1	460
•MOSHANNON (LITTLE) CREEK,	Center,	Moshannon Creek,	Upper West Branch Susquehanna,	55.6	460
•MOSQUITO CREEK,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	63.7	461
MOSQUITO RUN,	Center,	Dry Run,	Middle West Branch Susquehanna,	0.9	
•MOSQUITO RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	13.0	462
•MOSS CREEK,	Cambria,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	7.7	462
MOSS VALLEY RUN,	Schuylkill,	Schuylkill River,	Lower Delaware,	1.9	
•MOUNTAIN BRANCH,	Center,	Moshannon Creek,	Upper West Branch Susquehanna,	13.5	463
MOUNTAIN BRANCH,	Clearfield,	Sandy Lick Creek,	Middle Allegheny,	12.6	
•MOUNTAIN CREEK,	Cumberland,	Yellow Breeches Creek,	Lower Main Susquehanna,	49.4	463
MOUNTAIN CREEK,	Fayette,	George Creek,	Monongahela,	17.0	
MOUNTAIN CREEK, SOUTH FORK,	Fayette,	Mountain Creek,	Monongahela,	6.7	
MOUNTAIN RUN,	Clearfield,	Bennett Branch,	Upper West Branch Susquehanna,	7.7	
MT. PHOEBE RUN,	Greene,	Dyers Fork,	Monongahela,	1.6	
•MOUNTS CREEK,	Fayette,	Youghiogheny River,	Monongahela,	32.7	464

MOUSE CREEK,	Northumberland,	Schwaben Creek,	Middle Main Susquehanna,	7.1	
MOWRY RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	2.1	
MOYER MILL RUN,	Snyder,	North Branch Middle Creek,	Middle Main Susquehanna,	3.2	
MUD BROOK,	Wayne,	Middle Creek,	Upper Delaware,	5.8	
MUD CREEK,	Bradford,	Sugar Creek,	Upper North Branch Susquehanna,	6.4	
MUD CREEK,	Bradford,	Wappasening Creek,	Upper North Branch Susquehanna,	1.7	
MUD CREEK,	Montour,	Chillisquaque Creek,	Lower West Branch Susquehanna,	16.7	
MUD RUN,	Bedford,	Scrubgrass Creek,	Upper Juniata,	4.3	
MUD RUN,	Cambria,	Laurel Run,	Lower Allegheny,	2.6	
•MUD RUN,	Carbon,	Lehigh River,	Middle Delaware,	35.9	465
MUD RUN,	Crawford,	Little Sugar Creek,	Upper Allegheny,	4.7	
MUD RUN,	Northampton,	Delaware River,	Upper Delaware,	5.9	
MUD RUN,	Schuylkill,	Mill Creek,	Lower Delaware,	3.0	
MUD RUN,	Schuylkill,	Tomhicken Creek,	Lower North Branch Susquehanna,	3.7	
MUD RUN,	York,	Bermudian Creek,	Lower Main Susquehanna,	12.4	
MUDDY BRANCH,	Schuylkill,	West-West Branch Schuylkill River,	Lower Delaware,	4.5	
MUDDY BROOK,	Potter,	Genesee River,	Genesee	5.7 in Pa.	
•MUDDY CREEK,	Crawford,	French Creek,	Upper Allegheny,	83.1	465
•MUDDY CREEK,	Greene,	Monongahela River,	Monongahela,	32.0	466
•MUDDY CREEK,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	50.7	467
•MUDDY CREEK,	Lawrence,	Slippery Rock Creek,	Main Ohio,	58.5	467
MUDDY CREEK,	York,	Gunpowder Falls,	Lower Main Susquehanna,	0.9 in Pa.	
•MUDDY CREEK,	York,	Susquehanna River,	Lower Main Susquehanna,	138.7	468
•MUDDY CREEK, NORTH BRANCH,	York,	Muddy Creek,	Lower Main Susquehanna,	44.0	468
MUDDY CREEK, SOUTH BRANCH,	Greene,	Muddy Creek,	Monongahela,	7.3	
•MUDDY CREEK, SOUTH BRANCH,	York,	Muddy Creek,	Lower Main Susquehanna,	28.0	469
MUDDY (LITTLE) CREEK,	Lancaster,	Muddy Creek,	Lower Main Susquehanna,	15.3	
MUDDY RUN,	Adams,	Middle Creek,	Potomac,	6.8	
MUDDY RUN,	Center,	Penns Creek,	Middle Main Susquehanna,	14.7	
MUDDY RUN,	Chester	East Branch Octoraro Creek,	Lower Main Susquehanna,	14.9	
•MUDDY RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	30.6	469
MUDDY RUN,	Crawford,	Lake Creek,	Upper Allegheny,	0.7	
MUDDY RUN,	Fayette,	George Creek,	Monongahela,	5.9	
MUDDY RUN,	Franklin	Conococheague Creek,	Potomac,	21.8	
MUDDY RUN,	Huntingdon	Laurel Run,	Upper Juniata,	2.7	
MUDDY RUN,	Indiana,	Blacklick Creek,	Lower Allegheny,	7.5	
MUDDY RUN,	Lancaster,	Mill Creek,	Lower Main Susquehanna,	8.8	
MUDDY RUN,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	9.4	
MUDDY RUN,	Northumberland,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	10.4	
MUDDY RUN (or WARDEN RUN),	Venango,	Sugar Creek,	Upper Allegheny,	10.0	
MUDDY (LITTLE) RUN,	Clearfield,	Muddy Run,	Upper West Branch Susquehanna,	16.0	
MUDDY (LITTLE) RUN, EAST BRANCH,	Clearfield,	Little Muddy Run,	Upper West Branch Susquehanna,	2.6	
MUDLICK BRANCH,	Clinton,	West Branch Young Womans Creek,	Middle West Branch Susquehanna,	1.9	
MUDLICK CREEK,	Armstrong,	Pine Run,	Middle Allegheny,	3.7	
MUDLICK (LITTLE) CREEK,	Armstrong,	Mahoning Creek,	Middle Allegheny,	4.5	
MUDLICK FORK,	Greene,	South Fork Dunkard Fork,	Main Ohio,	7.3	
MUDLICK RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	1.5	
MUDLICK RUN,	Forest,	The Branch Salmon Creek,	Upper Allegheny,	0.4	
MUDLICK RUN,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	6.1	
MUDLICK RUN,	Indiana,	South Branch Plum Creek,	Middle Allegheny,	1.5	
MUDLICK RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	3.6	
MUDLICK RUN,	McKean,	South Branch Kinzua Creek,	Upper Allegheny,	0.9	
MUD POND RUN,	Pike,	Wallenpaupack Creek,	Upper Delaware,	2.1	
MUGSER RUN,	Columbia,	South Branch Roaring Creek,	Lower North Branch Susquehanna,	12.0	
MULEY RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	8.8	

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MULLIGAN RUN,	Butler,	Little Connoquenessing Creek,	Main Ohio,	6.5	
MUNCKINIPATTUS CREEK,	Delaware,	Darby Creek,	Lower Delaware,	4.6	
•MUNCY CREEK,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	216.3	470
•MUNCY (LITTLE) CREEK,	Lycoming,	Muncy Creek,	Lower West Branch Susquehanna,	81.0	471
MUNTZ RUN,	Butler,	Connoquenessing Creek,	Main Ohio,	1.9	
MURRAY RUN,	Huntingdon,	Standing Stone Creek,	Upper Juniata,	8.9	
MURRAY RUN,	Lycoming,	Wallis Run,	Lower West Branch Susquehanna,	6.7	
MUSKRAT RUN,	Venango,	Allegheny River,	Upper Allegheny,	4.3	
NAAMAN CREEK,	Delaware,	Delaware River,	Lower Delaware,	13.7	
NAAMAN CREEK, EAST BRANCH,	Delaware,	Naaman Creek,	Lower Delaware,	4.3	
NAAMAN CREEK, WEST BRANCH,	Delaware,	Naaman Creek,	Lower Delaware,	1.9	
NANCY RUN,	Northampton,	Lehigh River,	Middle Delaware,	2.8	
NANTICOKE CREEK,	Luzerne,	Newport Creek,	Lower North Branch Susquehanna,	8.0	
NARIGAN RUN,	Washington,	Buffalo Creek,	Main Ohio,	1.8	
NARROWS RUN,	Allegheny,	Ohio River,	Main Ohio,	2.3	
NAUVOO HOLLOW CREEK (or DOWNERS RUN),	Fayette,	Monongahela River,	Monongahela,	6.5	
NAYLOR CREEK,	Delaware,	Cobbs Creek,	Lower Delaware,	4.7	
NEAL RUN,	Indiana,	Reeds Run,	Lower Allegheny,	3.1	
NEAL RUN,	Warren,	Spring Creek,	Upper Allegheny,	2.4	
NEGRO GLADE RUN,	Somerset,	Casselman River,	Monongahela,	12.7	
NEGRO HOLLOW RUN,	Schuylkill,	Messers Run,	Lower North Branch Susquehanna,	2.3	
NEGUS RUN,	Crawford,	Oil Creek,	Upper Allegheny,	11.9	
NEIFERT CREEK,	Schuylkill,	Little Schuylkill River,	Lower Delaware,	3.2	
NEILL RUN,	York,	Fishing Creek,	Lower Main Susquehanna,	5.7	
NELSON BRANCH,	Potter,	Hammersley Fork,	Middle West Branch Susquehanna,	15.2	
NELSON RUN,	McKean,	Sugar Run,	Upper Allegheny,	5.6	
NELSON RUN,	Potter,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	2.3	
•NESCOPECK CREEK,	Columbia,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	172.9	471
NESCOPECK (LITTLE) CREEK,	Luzerne,	Nescopeck Creek,	Lower North Branch Susquehanna,	14.9	
•NESHAMINY CREEK,	Bucks,	Delaware River,	Middle Delaware,	236.5	472
•NESHAMINY CREEK, NORTH BRANCH,	Bucks,	Neshaminy Creek,	Middle Delaware,	32.1	473
•NESHAMINY CREEK, WEST BRANCH,	Bucks,	Neshaminy Creek,	Middle Delaware,	26.1	474
•NESHAMINY (LITTLE) CREEK,	Bucks,	Neshaminy Creek,	Middle Delaware,	43.1	474
•NESHANNOCK CREEK,	Lawrence,	Shenango River,	Main Ohio,	244.5	475
•NESHANNOCK (LITTLE) CREEK,	Lawrence,	Neshannock Creek,	Main Ohio,	51.2	476
NESHANNOCK (LITTLE) CREEK, WEST BRANCH,	Mercer,	Little Neshannock Creek,	Main Ohio,	18.2	
•NESQUEHONING CREEK,	Carbon,	Lehigh River,	Middle Delaware,	23.8	476
NEWBURG RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	6.8	
NEWEL CREEK,	McKean,	Allegheny River,	Upper Allegheny,	8.3	
NEW ENGLAND RUN,	Dauphin,	Armstrong Creek,	Middle Main Susquehanna,	2.3	
NEW HAVEN RUN,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	17.6	
•NEWPORT CREEK,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	22.4	477
NEWTON CREEK,	Lackawanna,	Fall Brook,	Lower North Branch Susquehanna,	4.4	
NEWTOWN CREEK,	Bucks,	Neshaminy Creek,	Middle Delaware,	6.2	

NICELY RUN,	Jefferson,	**Mahoning Creek,**	Middle Allegheny,	1.4	
NICHECRONK BROOK,	Pike,	**Dingmans Creek,**	Upper Delaware,	1.5	
NICHOLS RUN,	Jefferson,	**Hetrick Run,**	Middle Allegheny,	1.3	
NICHOLSON RUN,	Armstrong,	**Allegheny River,**	Middle Allegheny,	6.8	
NICHOLSON RUN,	Venango,	**Sandy Creek,**	Upper Allegheny,	3.2	
NICKEL MINES RUN,	Lancaster,	**West Branch Octoraro Creek,**	Lower Main Susquehanna,	4.7	
NILES HOLLOW,	Potter,	**Allegheny River,**	Upper Allegheny,	0.8	
NINEMILE RUN,	Allegheny,	**Monongahela River,**	Monongahela,	7.4	
NINEMILE RUN,	Fulton,	**Little Aughwick Creek,**	Lower Juniata,	1.9	
NINEMILE RUN,	Potter,	**Cushing Creek,**	Middle West Branch Susquehanna,	12.5	
•NINEMILE RUN,	Westmoreland,	**Loyalhanna Creek,**	Lower Allegheny,	20.6	478
NINE O'CLOCK BRANCH,	Dauphin,	**East Branch Rattling Creek,**	Middle Main Susquehanna,	2.7	
NINE PARTNERS CREEK,	Susquehanna,	**Butler Creek,**	Upper North Branch Susquehanna,	16.6	
•NIPPENOSE CREEK,	Lycoming,	**West Branch Susquehanna River,**	Lower West Branch Susquehanna,	58.2	479
NORCROSS RUN,	Cameron,	**First Fork Sinnemahoning Creek,**	Upper West Branch Susquehanna,	3.7	
NORRIS BRANCH,	Clearfield,	**Hogback Run,**	Upper West Branch Susquehanna,	1.6	
NORRIS BROOK,	Tioga,	**Catlin Hollow Run,**	Upper North Branch Susquehanna,	10.8	
NORTH BRANCH OR FORK (See name of main stream).					
NORTH BROOK,	Tioga,	Troups Creek,	Upper North Branch Susquehanna,	4.2 in Pa.	
NORTH CREEK,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	16.9	
NORTH PRONG,	Washington,	Castleman Run,	Main Ohio,	1.4	
NORTH RUN,	Cameron,	North Creek,	Upper West Branch Susquehanna,	2.2	
NORTH RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	0.9	
NORTH RUN,	Perry,	Laurel Run,	Lower Main Susquehanna,	1.0	
NORTH RUN,	Tioga,	Crooked Creek,	Upper North Branch Susquehanna,	5.6	
NORTH (See also significant name).					
NORTHEAST BRANCH (See name of main stream).					
NORTHEAST CREEK,	Chester,	Northeast River,	Lower Main Susquehanna,	7.5 in Pa.	
NORTHEAST (LITTLE) CREEK,	Chester,	Northeast Creek,	Lower Main Susquehanna,	0.4 in Pa.	
NORTHEAST RIVER,	State of Maryland,	Chesapeake Bay,	Lower Main Susquehanna,	7.5 in Pa.	
•NORTHKILL CREEK,	Berks,	Tulpehocken Creek,	Lower Delaware,	42.3	479
NORTHKILL (LITTLE) CREEK,	Berks,	Northkill Creek,	Lower Delaware,	21.3	
NORTH MOUNTAIN RUN (or TOWNSHIP RUN),	Franklin,	West Branch Conococheague Creek,	Potomac,	2.9	
NORTHWEST BRANCH (See name of main stream).					
NORWEGIAN CREEK,	Schuylkill,	Schuylkill River,	Lower Delaware,	6.8	
NORWEGIAN CREEK, EAST BRANCH,	Schuylkill,	Norwegian Creek,	Lower Delaware,	2.5	
NORWEGIAN CREEK, WEST BRANCH,	Schuylkill,	Norwegian Creek,	Lower Delaware,	2.9	
NUNNERY CREEK,	Franklin,	West Branch Little Antietam Creek,	Potomac,	2.9	
NYE BRANCH,	Armstrong,	Pine Run,	Middle Allegheny,	4.4	
OAK RUN,	Fulton,	Great Tonoloway Creek,	Potomac,	1.7	
OAK RUN,	Lackawanna,	Roaring Brook,	Lower North Branch Susquehanna,	4.9	
OAKLAND RUN,	York	Susquehanna River,	Lower Main Susquehanna,	3.3	
OBERT CREEK,	Sullivan,	Pigeon Creek,	Lower West Branch Susquehanna,	3.4	
•OCTORARO CREEK,	Chester and Lancaster,	Susquehanna River,	Lower Main Susquehanna,	210.2	480
•OCTORARO CREEK, EAST BRANCH,	Chester and Lancaster,	Octoraro Creek,	Lower Main Susquehanna,	90.4	480
•OCTORARO CREEK, WEST BRANCH,	Lancaster,	Octoraro Creek,	Lower Main Susquehanna,	48.4	481
OGDONIA CREEK,	Sullivan,	Kettle Creek,	Lower West Branch Susquehanna,	6.5	
•OHIO RIVER,	Beaver,	Mississippi River,	Ohio,	15,571.0 in Pa.	482

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
OIL CREEK,	Elk,	West Branch Clarion River,	Middle Allegheny,	1.1	
•OIL CREEK,	Venango,	Allegheny River,	Upper Allegheny,	335.3	484
OIL CREEK,	York,	West Branch Codorus Creek,	Lower Main Susquehanna,	16.9	
•OIL CREEK, EAST BRANCH,	Crawford,	Oil Creek,	Upper Allegheny,	66.1	485
OILMILL RUN,	Mercer,	Otter Creek,	Main Ohio,	4.1	
OLDTOWN RUN,	Blair,	Frankstown Branch,	Upper Juniata,	11.1	
OLD WOMAN RUN,	Huntingdon,	Aughwick Creek,	Lower Juniata,	7.4	
OLEY CREEK,	Luzerne,	Nescopeck Creek,	Lower North Branch Susquehanna,	6.4	
ONENSHEY RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	11.2	
•ONTELAUNEE CREEK,	Lehigh,	Maiden Creek,	Lower Delaware,	28.3	485
•OPOSSUM CREEK,	Adams,	Conewago Creek,	Lower Main Susquehanna,	35.1	486
OPOSSUM CREEK,	Fayette,	Youghiogheny River,	Monongahela,	7.4	
OPOSSUM RUN,	Lycoming,	Texas Run,	Middle West Branch Susquehanna,	1.2	
OPOSSUM RUN,	Washington,	Little Chartiers Creek,	Main Ohio,	1.3	
OPPENHEIMER RUN,	Bedford,	Dunning Creek,	Upper Juniata,	10.1	
ORCUTT CREEK,	Bradford,	Chemung River,	Upper North Branch Susquehanna,	8.0	
OREGON CREEK,	Fulton,	Sideling Hill Creek,	Lower Juniata,	4.7	
ORSON RUN,	York,	Muddy Creek,	Lower Main Susquehanna,	6.6	
OSTERHOUT CREEK,	Wyoming,	North Branch Susquehanna River	Upper North Branch Susquehanna,	6.4	
•OSWAYO CREEK,	McKean,	Allegheny River,	Upper Allegheny,	246.0	487
OSWAYO CREEK, SOUTH BRANCH,	Potter,	Oswayo Creek,	Upper Allegheny,	21.2	
OTT RUN,	Warren,	Allegheny River,	Upper Allegheny,	1.6	
OTTER CREEK,	Forest,	East Hickory Creek,	Upper Allegheny,	7.9	
•OTTER CREEK,	Mercer,	Neshannock Creek,	Main Ohio,	48.7	487
OTTER CREEK,	York,	Susquehanna River,	Lower Main Susquehanna,	19.3	
OTTER CREEK, SOUTH FORK,	York,	Otter Creek,	Lower Main Susquehanna,	4.1	
OTTER RUN,	Cambria,	Yellow Run,	Lower Allegheny,	4.7	
OTTER RUN,	Elk,	Standing Stone Run,	Middle Allegheny,	3.2	
OTTER RUN,	Lycoming,	Little Pine Creek,	Middle West Branch Susquehanna,	22.2	
OUGHOUGHTON CREEK,	Northampton,	Delaware River,	Upper Delaware,	11.0	
OVEN RUN (or UBEN RUN),	Somerset,	Stony Creek,	Lower Allegheny,	6.9	
OVERFLOWING RUN,	Greene,	Browns Creek,	Monongahela,	2.1	
OWENS RUN,	Greene,	Enslow Fork,	Main Ohio,	3.9	
OWL CREEK,	Schuylkill,	Little Schuylkill River,	Lower Delaware,	4.2	
OYSTER RUN,	Elk,	Little Toby Creek,	Middle Allegheny,	1.3	
PACK HORSE RUN,	Lycoming,	Blockhouse Run,	Middle West Branch Susquehanna,	5.3	
PADAN CREEK,	Crawford,	Shenango River,	Main Ohio,	27.6	
PADDY RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	21.0	
PAGE HOLLOW,	Warren,	Glade Run,	Upper Allegheny,	2.0	
PAINES RUN (or FANS RUN),	Fayette,	Jennings Run,	Monongahela,	1.6	
•PAINT CREEK,	Cambria and Somerset,	Stony Creek,	Lower Allegheny,	37.0	488
•PAINT CREEK,	Clarion,	Deer Creek,	Middle Allegheny,	39.9	488
PAINT (LITTLE) CREEK,	Cambria,	Paint Creek,	Lower Allegheny,	13.0	
PAINT (LITTLE) CREEK,	Clarion,	Paint Creek,	Middle Allegheny,	5.7	
PAINTER HOLLOW,	Clinton,	Kettle Creek,	Middle West Branch Susquehanna,	0.4	

PAINTER RUN,	Indiana,	Canoe Creek,	Middle Allegheny,	3.0	
PAINTER RUN,	Jefferson,	Pine Run,	Middle Allegheny,	2.5	
PAINTER RUN,	Jefferson,	Sandy Lick Creek,	Middle Allegheny,	1.6	
PAINTER RUN,	Sullivan,	West Branch Fishing Creek,	Lower North Branch Susquehanna,	8.0	
PAINTER RUN,	Tioga,	Mill Creek,	Upper North Branch Susquehanna,	4.8	
PAINTER RUN,	Tioga,	Pine Creek,	Middle West Branch Susquehanna,	4.2	
PAINTER DEN CREEK,	Sullivan,	Lopez Creek,	Lower West Branch Susquehanna,	9.4	
PAINTERS RUN,	Allegheny,	Chartiers Creek,	Main Ohio,	4.3	
PAINTERS RUN,	Beaver,	North Fork Little Beaver River,	Main Ohio,	3.8	
PAINTERS RUN,	Indiana,	Cush Cushion Creek,	Upper West Branch Susquehanna,	1.4	
PAINTERS RUN,	Westmoreland,	Sewickley Creek,	Monongahela,	3.0	
PAINT SPRING RUN,	Luzerne,	Bear Hollow Creek,	Lower North Branch Susquehanna,	1.4	
PANTHER CREEK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	1.0	
PANTHER CREEK,	Pike,	Delaware River,	Upper Delaware,	3.8	
*PANTHER CREEK,	Schuylkill,	Little Schuylkill River,	Lower Delaware,	10.9	489
PANTHER CREEK,	Schuylkill,	Swatara Creek,	Lower Main Susquehanna,	1.7	
PANTHER CREEK,	Schuylkill,	West Branch Schuylkill River,	Lower Delaware,	4.9	
PANTHER CREEK,	Venango,	East Branch Sugar Creek,	Upper Allegheny,	14.0	
PANTHER RUN,	Center,	Beech Creek,	Middle West Branch Susquehanna,	7.9	
PANTHER RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	0.8	
PANTHER RUN,	McKean,	East Branch Potato Creek,	Upper Allegheny,	1.8	
PANTHER RUN,	Mifflin,	Penns Creek,	Middle Main Susquehanna,	2.7	
PANTHER RUN,	Venango,	Allegheny River,	Upper Allegheny,	2.5	
PANTHER GAP RUN,	Center,	Pine Creek Hollow,	Middle Main Susquehanna,	0.6	
PARADISE CREEK,	Monroe,	Analomink Creek,	Upper Delaware,	13.5	
*PARADISE CREEK (or LITTLE CONEWAGO CREEK),	York,	Conewago Creek,	Lower Main Susquehanna,	60.9	306
PARK CREEK,	Bucks,	Little Neshaminy Creek,	Middle Delaware,	12.2	
PARKER RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	7.2	
PARKS CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	3.8 in Pa.	
PARKS CREEK,	Bradford,	Wysox Creek,	Upper North Branch Susquehanna,	11.2	
PARMAR RUN,	State of West Virginia,	Scott Run,	Main Ohio,	2.5	
PARRER RUN,	McKean,	Salt Works Branch,	Upper West Branch Susquehanna,	1.3	
PARSONS RUN,	Clarion,	Sloan Run,	Middle Allegheny,	1.6	
PASSMORE RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	1.0	
PATCHEL RUN (or PATCHETT RUN),	Venango,	French Creek,	Upper Allegheny,	6.5	
PATCHETT RUN (or PATCHEL RUN),	Venango,	French Creek,	Upper Allegheny,	6.5	
PATCHIN RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	1.3	
PATTERSON CREEK,	Armstrong,	Buffalo Creek,	Lower Allegheny,	21.7	
PATTERSON RUN,	Butler,	Thorn Creek,	Main Ohio,	2.7	
PATTERSON RUN,	Fayette,	Laurel Run,	Monongahela,	2.1 in Pa.	
PATTERSON RUN,	Fulton,	Licking Creek,	Potomac,	11.9	
PATTERSON RUN,	Washington,	Tenmile Creek,	Monongahela,	2.2	
PATTERSONS RUN,	Perry,	Sherman Creek,	Lower Main Susquehanna,	5.4	
PAUNACUSSING CREEK,	Bucks,	Delaware River,	Middle Delaware,	8.2	
PAW PAW RUN,	Blair,	Frankstown Branch,	Upper Juniata,	1.0	
*PAXTON CREEK,	Dauphin,	Susquehanna River,	Lower Main Susquehanna,	25.3	490
PEACH ORCHARD RUN,	Cumberland,	Yellow Breeches Creek,	Lower Main Susquehanna,	3.2	
PEG RUN,	Cambria,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	2.3	
PEGGS RUN,	Beaver,	Ohio River,	Main Ohio,	4.0	
PEGGYS RUN,	Cambria,	Little Conemaugh River,	Lower Allegheny,	1.4	
PEKIN RUN,	Jefferson,	North Fork Redbank Creek,	Middle Allegheny	10.4	
PELL RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	1.1	
PENN RUN,	Indiana,	Twolick Creek,	Lower Allegheny,	7.5	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
•PENNS CREEK,	Snyder,	Susquehanna River,	Middle Main Susquehanna,	558.0	491
•PENNSYLVANIA FORK,	Greene,	Dunkard Creek,	Monongahela,	37.8	492
•PENNSYLVANIA FORK,	Greene,	Fish Creek,	Main Ohio,	36.6 in Pa.	492
•PENNYPACK CREEK,	Philadelphia,	Delaware River,	Lower Delaware,	56.0	493
PENROSE RUN,	Carbon,	Hazle Creek,	Middle Delaware,	1.5	
PENSIL CREEK,	Monroe,	McMichaels Creek,	Upper Delaware,	21.7	
PENTZ RUN,	Clearfield,	Sandy Lick Creek,	Middle Allegheny,	6.1	
PEPPERHILL RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	0.7	
•PEQUEA CREEK,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	153.4	493
PERCE BROOK,	McKean,	Potato Creek,	Upper Allegheny,	3.8	
PERGRIN RUN,	Cambria,	South Branch Blacklick Creek,	Lower Allegheny,	1.3	
•PERKIOMEN CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	361.8	494
•PERKIOMEN CREEK, NORTHEAST BRANCH.	Montgomery,	Perkiomen Creek,	Lower Delaware,	62.2	495
PERKIOMEN CREEK, NORTHWEST BRANCH.	Montgomery,	Perkiomen Creek,	Lower Delaware,	23.8	
PERRY RUN,	Venango,	Allegheny River,	Upper Allegheny,	1.0	
PERRY FURNACE RUN,	Perry,	Sherman Creek,	Lower Main Susquehanna,	7.3	
PERRY MAGEE RUN,	Warren,	Allegheny River,	Upper Allegheny,	5.6	
PERRY MILL RUN,	Allegheny,	Monongahela River,	Monongahela,	4.0	
PERRYVILLE RUN,	Jefferson,	Mahoning Creek,	Middle Allegheny,	2.5	
PETE RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	2.0	
•PETERS CREEK,	Allegheny,	Monongahela River,	Monongahela,	52.1	496
PETERS CREEK,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	10.6	
PETERS RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	0.9	
PHALEN RUN,	Elk,	Little Toby Creek,	Middle Allegheny,	0.9	
PHELPS CREEK,	Warren,	Coffee Creek,	Upper Allegheny,	7.5	
PHELPS RUN,	Forest,	Tionesta Creek,	Upper Allegheny	1.7	
PHILIPS CREEK,	Luzerne,	Huntington Creek,	Lower North Branch Susquehanna,	5.9	
PHILIPS RUN,	Center,	Elk Creek,	Middle Main Susquehanna,	1.0	
PHILLIPSBURG RUN,	Elk,	Clarion River,	Middle Allegheny,	0.7	
PHOENIX RUN,	Tioga,	Pine Creek,	Middle West Branch Susquehanna,	24.1	
PHOENIX (LITTLE) RUN,	Potter,	Phoenix Run,	Middle West Branch Susquehanna,	1.9	
PHRANTON RUN,	Huntingdon,	Shaver Creek,	Upper Juniata,	4.9	
•PICKERING CREEK,	Chester,	Schuylkill River,	Lower Delaware,	38.4	497
PICKERING RUN,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	6.9	
PICKINGS RUN,	Somerset,	Quemahoning Creek,	Lower Allegheny,	9.5	
PIDCOCK CREEK,	Bucks,	Delaware River,	Middle Delaware,	12.1	
PIERCEVILLE RUN,	York,	South Branch Codorus Creek,	Lower Main Susquehanna,	2.9	
PIGEON CREEK,	Chester,	Pickering Creek,	Lower Delaware,	3.3	
PIGEON CREEK,	Chester,	Schuylkill River,	Lower Delaware,	14.8	
PIGEON CREEK,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	9.7	
•PIGEON CREEK,	Washington,	Monongahela River,	Monongahela,	58.9	497
PIGEON CREEK, CENTER BRANCH,	Washington,	Pigeon Creek,	Monongahela,	6.8	
PIGEON CREEK, NORTH BRANCH,	Washington,	Pigeon Creek,	Monongahela,	12.8	
PIGEON CREEK, SOUTH BRANCH,	Washington,	Pigeon Creek,	Monongahela,	11.1	
PIGEON RUN,	Elk,	Bear Creek,	Middle Allegheny,	5.4	

PIGEON RUN,	Forest,	Spring Creek,	Middle Allegheny,	1.8	
PIGEON RUN,	Greene,	Pennsylvania Fork Fish Creek,	Main Ohio,	1.0	
PIG PEN RUN,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	3.3	
PIKE CREEK,	Luzerne,	Harvey Creek,	Lower North Branch Susquehanna,	12.2	
•PIKE RUN,	Washington,	Monongahela River,	Monongahela,	28.6	498
PIKE RUN,	Westmoreland,	Roaring Run,	Monongahela,	5.4	
PIKE (LITTLE) RUN,	Washington,	Pike Run,	Monongahela,	4.9	
PINCHOT BROOK,	Pike,	Saw Kill,	Upper Delaware,	1.4	
•PINE CREEK,	Allegheny,	Allegheny River,	Lower Allegheny,	67.3	499
•PINE CREEK,	Armstrong,	Allegheny River,	Middle Allegheny,	51.5	499
PINE CREEK,	Berks,	Little Manatawny Creek,	Lower Delaware,	22.9	
PINE CREEK,	Berks,	Maiden Creek,	Lower Delaware,	17.8	
•PINE CREEK,	Center,	Penns Creek,	Middle Main Susquehanna,	97.9	500
PINE CREEK,	Chester,	Pickering Creek,	Lower Delaware,	5.8	
PINE CREEK,	Chester and Lancaster,	Buck Run,	Lower Main Susquehanna,	2.7	
PINE CREEK,	Clarion,	Redbank Creek,	Middle Allegheny,	12.1	
•PINE CREEK,	Clinton and Lycoming,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	973.0	501
•PINE CREEK,	Columbia,	Huntington Creek,	Lower North Branch Susquehanna,	30.8	502
•PINE CREEK,	Crawford,	Caldwell Creek,	Upper Allegheny,	29.5	502
PINE CREEK,	Luzerne,	Lehigh River,	Middle Delaware,	5.0	
PINE CREEK,	Schuylkill,	Little Schuylkill River,	Lower Delaware,	7.7	
•PINE CREEK,	Schuylkill,	Mahantango Creek,	Middle Main Susquehanna,	77.4	503
PINE CREEK,	Schuylkill,	Schuylkill River,	Lower Delaware,	15.9	
PINE CREEK, NORTH FORK,	Allegheny,	Pine Creek,	Lower Allegheny,	9.9	
PINE CREEK, NORTH FORK,	Armstrong,	Pine Creek,	Middle Allegheny,	12.8	
PINE CREEK, SOUTH BRANCH,	Potter,	Pine Creek,	Middle West Branch Susquehanna,	10.9	
•PINE CREEK, SOUTH FORK,	Armstrong,	Pine Creek,	Middle Allegheny,	38.4	499
PINE CREEK, SOUTH FORK, NORTH BRANCH	Armstrong,	South Fork Pine Creek,	Middle Allegheny,	11.3	
PINE CREEK, SOUTH FORK, SOUTH BRANCH	Armstrong,	South Fork Pine Creek,	Middle Allegheny,	8.0	
PINE CREEK, WEST BRANCH,	Berks,	Pine Creek,	Lower Delaware,	11.1	
•PINE CREEK, WEST BRANCH	Potter,	Pine Creek,	Middle West Branch Susquehanna,	67.9	503
PINE CREEK, WEST BRANCH, NORTH BRANCH	Potter,	West Branch Pine Creek,	Middle West Branch Susquehanna,	17.6	
•PINE CREEK, WEST BRANCH, SOUTH BRANCH	Potter,	West Branch Pine Creek,	Middle West Branch Susquehanna,	27.5	504
PINE (LITTLE) CREEK,	Allegheny,	Pine Creek,	Lower Allegheny,	7.1	
PINE (LITTLE) CREEK,	Allegheny,	Pine Creek,	Lower Allegheny,	6.0	
•PINE (LITTLE) CREEK,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	171.9	505
PINE RUN,	Adams,	Conewago Creek,	Lower Main Susquehanna,	6.7	
PINE RUN,	Armstrong,	Buffalo Creek,	Lower Allegheny,	7.3	
PINE RUN,	Armstrong,	Crooked Creek,	Middle Allegheny,	3.8	
•PINE RUN,	Armstrong,	Mahoning Creek,	Middle Allegheny,	32.4	505
PINE RUN,	Armstrong,	Sugar Creek,	Middle Allegheny,	2.3	
PINE RUN,	Beaver,	Connoquenessing Creek,	Main Ohio,	1.5	
PINE RUN,	Beaver,	Crows Run,	Main Ohio,	1.8	
PINE RUN,	Beaver,	North Fork Little Beaver River,	Main Ohio,	1.9	
PINE RUN,	Blair,	Frankstown Branch,	Upper Juniata,	1.6	
PINE RUN,	Bucks,	Mill Creek,	Middle Delaware,	2.4	
PINE RUN,	Bucks,	North Branch Neshaminy Creek,	Middle Delaware,	11.6	
PINE RUN,	Butler,	Connoquenessing Creek,	Main Ohio,	3.6	
•PINE RUN,	Carbon,	Pohopoco Creek,	Middle Delaware,	12.3	506

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
PINE RUN,	Center,	Miles Run,	Upper West Branch Susquehanna,	4.2	
PINE RUN,	Center,	North Fork Beech Creek,	Middle West Branch Susquehanna,	3.8	
PINE RUN,	Clearfield,	Chest Creek,	Upper West Branch Susquehanna,	4.3	
PINE RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	3.9	
PINE RUN,	Crawford,	Inlet Run,	Upper Allegheny,	2.6	
PINE RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	4.7	
PINE RUN,	Forest,	Bobbs Creek,	Upper Allegheny,	3.9	
PINE RUN,	Indiana,	Crooked Creek,	Middle Allegheny,	9.1	
PINE RUN,	Luzerne,	Buttonwood Creek,	Lower North Branch Susquehanna,	4.6	
PINE RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	9.5	
PINE RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	2.9	
PINE RUN,	Mercer,	Little Shenango River,	Main Ohio,	4.1	
PINE RUN (or BLACK RUN),	Mercer,	Neshannock Creek,	Main Ohio,	6.9	
PINE RUN,	Mercer,	Shenango River,	Main Ohio,	2.9	
PINE RUN,	Venango,	East Sandy Creek,	Upper Allegheny,	15.5	
PINE RUN,	Washington,	Little Tenmile Creek,	Monongahela,	1.6	
PINE RUN,	Westmoreland,	Kiskiminitas River,	Lower Allegheny,	17.6	
PINE RUN,	York,	North Branch Muddy Creek,	Lower Main Susquehanna,	5.7	
PINE RUN, MIDDLE BRANCH,	Jefferson,	Pine Run,	Middle Allegheny,	1.8	
PINE (LITTLE) RUN,	Lycoming,	Pine Run,	Lower West Branch Susquehanna,	1.4	
PINE BOTTOM (LOWER) RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	3.6	
PINE BOTTOM (UPPER) RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	9.9	
PINE CREEK HOLLOW,	Center,	Pine Creek,	Middle Main Susquehanna,	7.0	
PINE HILL RUN (or MAYS RUN),	Venango,	Allegheny River,	Upper Allegheny,	3.7	
PINE HOLLOW RUN,	Forest,	Little Coon Creek,	Upper Allegheny,	0.9	
PINEY CREEK,	Adams,	Monocacy River,	Potomac,	7.0 in Pa.	
PINEY CREEK,	Bedford,	Sideling Hill Creek,	Potomac,	13.0	
•PINEY CREEK,	Blair,	Frankstown Branch,	Upper Juniata,	25.9	506
•PINEY CREEK,	Clarion,	Clarion River,	Middle Allegheny,	69.8	507
PINEY (LITTLE) CREEK	Clarion	Piney Creek,	Middle Allegheny,	12.5	
PINEY (LITTLE) CREEK	Warren,	Queen Creek,	Upper Allegheny,	0.6	
PINEY FORK,	Allegheny,	Peters Creek,	Monongahela,	13.8	
PINEY RUN,	Fayette,	Laurel Run,	Monongahela,	2.9	
PINEY RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	1.2	
PINEY RUN,	Somerset,	Clear Shade Creek,	Lower Allegheny,	9.5	
PINEY (BIG) RUN,	Somerset,	Casselman River,	Monongahela,	34.1	
PINEY (LITTLE) RUN,	Somerset,	Big Piney Run,	Monongahela,	6.3	
PINKERTON RUN,	Westmoreland,	Sewickley Creek,	Monongahela,	1.7	
PINKERTONS CREEK,	Allegheny,	Robinson Run,	Main Ohio,	2.6	
PIPER RUN	Bedford,	Raystown Branch,	Upper Juniata,	8.1	
PIPPINS RUN,	York,	Yellow Breeches Creek,	Lower Main Susquehanna,	2.7	
PISGAH RUN,	Perry,	Sherman Creek,	Lower Main Susquehanna,	5.1	
PITCH PINE RUN,	Jefferson,	Sandy Lick Creek,	Middle Allegheny,	2.0	
•PITHOLE CREEK,	Venango,	Allegheny River,	Upper Allegheny,	42.5	508
PITHOLE (BRANCH) CREEK,	Venango,	Pithole Creek,	Upper Allegheny,	2.5	
PITHOLE (WEST) CREEK,	Venango,	Pithole Creek,	Upper Allegheny,	[illegible]	

PLAINS CREEK,	Pike,	Wallenpaupack Creek,	Upper Delaware,	1.5	
PLANK BRIDGE CREEK,	Lackawanna,	Spring Brook,	Lower North Branch Susquehanna,	1.2	
PLANK ROAD RUN,	Cameron,	Hunts Run,	Upper West Branch Susquehanna,	8.2	
*PLEASANT STREAM,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	41.6	508
PLEASANT SPRING CREEK,	Bucks,	Northeast Branch Perkiomen Creek,	Lower Delaware,	9.5	
PLEASANT VALLEY RUN,	Washington,	Buffalo Creek,	Main Ohio,	2.9	
PLUM CREEK,	Adams,	Alloway Creek,	Potomac,	2.9	
PLUM CREEK,	Adams,	South Branch Conewago Creek,	Lower Main Susquehanna,	8.6	
PLUM CREEK,	Allegheny,	Allegheny River,	Lower Allegheny,	20.8	
*PLUM CREEK,	Armstrong,	Crooked Creek,	Middle Allegheny,	80.0	509
PLUM CREEK,	Berks,	Tulpehocken Creek,	Lower Delaware,	12.8	
*PLUM CREEK (or ROARING SPRING RUN),	Blair,	Frankstown Branch,	Upper Juniata,	37.8	509
PLUM CREEK,	Northumberland,	Little Shamokin Creek,	Middle Main Susquehanna,	10.1	
PLUM CREEK,	Schuylkill,	Schuylkill River,	Lower Delaware,	5.9	
PLUM CREEK, NORTH BRANCH,	Armstrong,	Plum Creek,	Middle Allegheny,	21.0	
*PLUM CREEK, SOUTH BRANCH,	Armstrong,	Plum Creek,	Middle Allegheny,	39.9	510
PLUM (BIG) CREEK,	Clinton,	Chatham Run,	Middle West Branch Susquehanna,	5.7	
PLUM (LITTLE) CREEK,	Clinton,	Chatham Run,	Middle West Branch Susquehanna,	3.6	
PLUM RUN,	Adams,	Conewago Creek,	Lower Main Susquehanna,	6.1	
PLUM RUN,	Adams,	Marsh Creek,	Potomac,	2.8	
PLUM RUN,	Adams,	Rock Creek,	Potomac,	3.8	
PLUM RUN,	Chester,	Brandywine Creek,	Lower Delaware,	3.5	
PLUM RUN,	Fulton,	Little Aughwick Creek,	Lower Juniata,	4.3	
PLUM RUN,	Washington,	Chartiers Run,	Main Ohio,	4.0	
PLUM RUN,	Washington,	Tenmile Creek,	Monongahela,	7.1	
PLUM COVE CREEK,	Blair,	Plum Creek,	Upper Juniata,	3.6	
PLUNKETT CREEK,	Lycoming,	Loyalsock Creek,	Lower West Branch Susquehanna,	22.2	
PLUNKETT CREEK, WEST BRANCH,	Lycoming,	Plunkett Creek,	Lower West Branch Susquehanna,	4.0	
PLYMOUTH CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	7.1	
*POCONO CREEK,	Monroe,	McMichaels Creek,	Upper Delaware,	42.1	511
POCOPSON CREEK,	Chester,	Brandywine Creek,	Lower Delaware,	9.2	
POE CREEK,	Center,	Penns Creek,	Middle Main Susquehanna,	9.3	
POE RUN,	Clarion,	Piney Creek,	Middle Allegheny,	2.2	
*POHOPOCO CREEK (or BIG CREEK),	Carbon,	Lehigh River,	Middle Delaware,	105.5	511
POINT LOOKOUT BRANCH (or RESERVOIR No. 1 RUN),	Washington,	Chartiers Creek,	Main Ohio,	2.3	
POISON BROOK,	Pike,	Rattlesnake Brook,	Upper Delaware,	1.2	
POKE RUN,	Westmoreland,	Beaver Run,	Lower Allegheny,	6.8	
POLE RUN,	Schuylkill,	North Branch Mahanoy Creek,	Middle Main Susquehanna,	0.4	
POLE BRIDGE RUN,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	4.9	
POLE CAT RUN,	Blair,	Frankstown Branch,	Upper Juniata,	4.0	
POLLOCK RUN,	Allegheny,	Youghiogheny River,	Monongahela,	8.2	
POND BROOK,	Susquehanna,	Meshoppen Creek,	Upper North Branch Susquehanna,	4.3	
POND BROOK,	Wayne,	Middle Creek,	Upper Delaware,	2.6	
POND CREEK,	Lackawanna,	Lehigh River,	Middle Delaware,	10.6	
POND CREEK,	Luzerne,	Little Wapwallopen Creek,	Lower North Branch Susquehanna,	9.1	
POND CREEK,	Luzerne,	Sandy Run,	Middle Delaware,	11.3	
POND CREEK,	Monroe,	Marshall Creek,	Upper Delaware,	10.3	
POND RUN,	Bradford,	Sugar Creek,	Upper North Branch Susquehanna,	2.3	
POND EDDY CREEK,	Pike,	Delaware River,	Upper Delaware,	7.1	
POORHOUSE RUN,	Beaver,	Ohio River,	Main Ohio,	1.8	
POPLAR RUN,	Blair,	Frankstown Branch,	Upper Juniata,	16.9	
POPLAR RUN,	Clearfield,	Bell Run,	Upper West Branch Susquehanna,	4.1	
POPLAR RUN,	Fayette,	Indian Creek,	Monongahela,	9.8	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
POPLAR RUN,	Lancaster,	Hammer Creek,	Lower Main Susquehanna,	1.1	
POPLAR RUN,	Schuylkill,	Good Spring Creek,	Lower Main Susquehanna,	1.1	
POPLAR (SOUTH) RUN,	Blair,	Frankstown Branch,	Upper Juniata,	13.7	
POPLAR SPRING RUN,	Adams,	Little Marsh Creek,	Potomac,	1.9	
POQUESSING CREEK,	Bucks and Philadelphia,	Delaware River,	Lower Delaware,	20.7	
PORCUPINE RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	3.6	
PORCUPINE RUN,	Venango,	East Sandy Creek,	Upper Allegheny,	3.1	
PORTAGE CREEK,	Cameron,	Sinnemahoning Portage,	Upper West Branch Susquehanna,	20.3	
PORTER RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	3.2	
PORTER RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	0.7	
PORTERS RUN,	Westmoreland,	Beaver Run,	Lower Allegheny,	4.9	
POSSUM HOLLOW,	Warren,	Dutchman Run,	Upper Allegheny,	2.3	
POSSUM HOLLOW,	Westmoreland,	Youghiogheny River,	Monongahela,	2.4	
POTASH CREEK,	Crawford,	Muddy Creek,	Upper Allegheny,	8.8	
*POTATO CREEK,	McKean,	Allegheny River,	Upper Allegheny,	239.8	512
*POTATO CREEK, EAST BRANCH,	McKean,	Potato Creek,	Upper Allegheny,	28.0	513
POTATO CREEK, WEST BRANCH,	McKean,	Potato Creek,	Upper Allegheny,	17.6	
POTATO CREEK, WEST BRANCH, SOUTH FORK,	McKean,	West Branch Potato Creek,	Upper Allegheny,	7.9	
POTATO CREEK, WEST BRANCH, WEST FORK,	McKean,	West Branch Potato Creek,	Upper Allegheny,	4.9	
POTATO RUN,	Washington,	Little Tenmile Creek,	Monongahela,	0.9	
POTATO GARDEN RUN,	Beaver,	Raccoon Creek,	Main Ohio,	10.3	
*POTOMAC RIVER (Basin described),	State of Maryland,	Chesapeake Bay,	Potomac,	1,570.0 in Pa.	513
POTTER BROOK,	Tioga,	Cowanesque River,	Upper North Branch Susquehanna,	8.8	
POTTER RUN,	Lawrence,	Neshannock Creek,	Main Ohio,	6.0	
POTTS RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	15.4	
POWDER RUN,	Somerset,	Kennell Mill Run,	Potomac,	1.7	
POWDERLY CREEK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	3.6	
POWDERMILL RUN,	Mercer,	French Creek,	Upper Allegheny,	6.4	
*POWELL CREEK,	Dauphin,	Susquehanna River,	Middle Main Susquehanna,	39.2	514
POWELL CREEK, NORTH FORK,	Dauphin,	Powell Creek,	Middle Main Susquehanna,	9.0	
POWELL CREEK, SOUTH FORK,	Dauphin,	Powell Creek,	Middle Main Susquehanna,	4.9	
POWELL RUN,	Cambria,	Clearfield Creek,	Upper West Branch Susquehanna,	11.2	
POWERS RUN,	Allegheny,	Allegheny River,	Lower Allegheny,	0.9	
POWERS RUN,	Elk,	Clarion River,	Middle Allegheny,	10.4	
PREACHER CREEK,	Bradford,	Towanda Creek,	Upper North Branch Susquehanna,	9.4	
PRESTON RUN,	Delaware,	Crum Creek,	Lower Delaware,	0.6	
PRIEST HOLLOW,	Warren,	Ackley Run,	Upper Allegheny,	2.1	
PRINCE HOLLOW RUN,	Bradford,	Wappasening Creek,	Upper North Branch Susquehanna,	13.3	
*PRINCESS CREEK,	Carbon,	Aquashicola Creek,	Middle Delaware,	44.3	515
PROSSER CREEK,	Warren,	Coffee Creek,	Upper Allegheny,	5.0	
PROUTY BRANCH,	Potter,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	2.8	

•PUCKETA CREEK,	Allegheny and Westmoreland.	Allegheny River,	Lower Allegheny,	36.2	516
PUCKETA (LITTLE) CREEK,	Westmoreland,	Pucketa Creek,	Lower Allegheny,	10.2	
PUDDLE DUCK CREEK,	Lancaster,	Peters Creek,	Lower Main Susquehanna,	4.3	
PUMPKIN RUN,	Greene,	Monongahela River,	Monongahela,	6.2	
PUMPKIN RUN,	Greene,	Pennsylvania Fork Dunkard Creek,	Monongahela,	1.5	
PURMAN RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	2.7	
PURPLE BROOK,	Tioga,	Cowanesque River,	Upper North Branch Susquehanna,	4.3	
PURSLEY CREEK,	Greene,	South Fork Tenmile Creek,	Monongahela,	13.6	
PUTTS RUN,	Huntingdon,	Shoups Run,	Upper Juniata,	3.1	
PUZZLEY RUN,	Somerset,	Whites Creek,	Monongahela,	8.6	
•PYMATUNING CREEK,	Mercer,	Shenango River,	Main Ohio,	176.4	516
•QUAKAKE CREEK,	Carbon,	Black Creek,	Middle Delaware,	25.3	517
QUAKAKE (LITTLE) CREEK,	Carbon,	Quakake Creek,	Middle Delaware,	1.6	
QUAKER RUN,	Adams,	Opossum Creek,	Lower Main Susquehanna,	6.8	
QUAKER RUN,	Juniata,	West Branch Mahantango Creek,	Middle Main Susquehanna,	4.5	
QUAKER RUN,	Northumberland,	Shamokin Creek,	Middle Main Susquehanna,	4.2	
QUEBEC RUN,	Fayette,	Big Sandy Creek,	Monongahela,	14.8	
QUEEN CREEK,	Forest,	East Hickory Creek,	Upper Allegheny,	10.4	
QUEEN ANN CREEK,	Bucks,	Mill Creek,	Middle Delaware,	7.0	
•QUEENS RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	15.2	517
•QUEMAHONING CREEK,	Somerset,	Stony Creek,	Lower Allegheny,	98.8	518
•QUEMAHONING CREEK, NORTH BRANCH	Somerset,	Quemahoning Creek,	Lower Allegheny,	24.6	519
QUICKS MILL BROOK (or CUMMINS CREEK)	Pike,	Delaware River,	Upper Delaware,	4.5	
•QUITTAPAHILLA CREEK,	Lebanon,	Swatara Creek,	Lower Main Susquehanna,	77.8	519
RABBIT RUN,	Bucks,	Delaware River,	Middle Delaware,	0.4	
RABBIT RUN	Schuylkill,	Little Schuylkill River,	Lower Delaware,	2.2	
•RACCOON CREEK,	Beaver,	Ohio River,	Main Ohio,	183.9	520
RACCOON CREEK,	Erie,	Lake Erie,	Erie,	9.2	
RACCOON CREEK,	Franklin,	Rocky Mountain Creek,	Potomac,	4.0	
RACCOON CREEK,	Perry,	Juniata River,	Lower Juniata,	18.6	
RACCOON CREEK,	Schuylkill,	Tomhicken Creek,	Lower North Branch Susquehanna,	2.8	
RACCOON CREEK,	Schuylkill,	West Branch Schuylkill River,	Lower Delaware,	1.0	
RACCOON (LITTLE) CREEK,	Washington,	Raccoon Creek,	Main Ohio,	15.8	
RACCOON RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	1.0	
RACHEL RUN,	Cambria	South Fork Little Conemaugh River,	Lower Allegheny,	0.6	
RACKET BROOK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	5.5	
RADLEY RUN,	Chester,	Brandywine Creek,	Lower Delaware,	4.1	
RAG RUN,	Beaver,	Ohio River,	Main Ohio,	0.8	
RAGER RUN,	Cambria,	Stewart Run,	Lower Allegheny,	1.3	
RAILROAD BRANCH,	McKean,	East Branch Potato Creek,	Upper Allegheny,	2.5	
RAILROAD RUN,	McKean,	East Branch Tunungwant Creek,	Upper Allegheny,	6.6	
RAIRIGH RUN,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	3.1	
RALSTON RUN,	Washington,	Dutch Fork,	Main Ohio,	1.5	
RAMBO RUN,	York,	North Branch Muddy Creek,	Lower Main Susquehanna,	11.2	
RAMSEY RUN,	Indiana,	Blacklick Creek,	Lower Allegheny,	0.6	
RAMSEY RUN,	Indiana,	Twolick Creek,	Lower Allegheny,	4.7	
RAMSEY RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	8.4	
RAMS HOLLOW RUN,	Clinton,	Queens Run,	Middle West Branch Susquehanna,	4.1	
RANDOLPH RUN,	Crawford,	Crooked Creek,	Main Ohio,	7.7	
RANKIN RUN,	Fayette,	Redstone Creek,	Monongahela,	2.3	
•RAPID RUN,	Union,	Buffalo Creek,	Lower West Branch Susquehanna,	25.2	521
RAPP RUN,	Clarion,	Toby Creek,	Middle Allegheny,	1.2	
RAPPE RUN,	Forest,	Watson Branch,	Middle Allegheny,	2.7	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
RAREDON RUN,	Beaver,	Raccoon Creek,	Main Ohio,	9.6	
RASTER RUN (or RESLAR RUN),	Fayette,	Indian Creek,	Monongahela,	6.8	
RATTLESNAKE BROOK,	Pike,	Shohola Creek,	Upper Delaware,	12.5	
RATTLESNAKE CREEK,	Lackawanna,	Spring Brook,	Lower North Branch Susquehanna,	9.2	
RATTLESNAKE RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	2.0	
RATTLESNAKE RUN,	Chester,	Muddy Run,	Lower Main Susquehanna,	2.7	
RATTLESNAKE RUN,	Clarion,	Allegheny River,	Middle Allegheny,	3.1	
RATTLESNAKE RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	12.3	
RATTLESNAKE RUN,	Jefferson,	Little Toby Creek,	Middle Allegheny,	16.5	
RATTLESNAKE RUN,	Monroe,	Brodheads Creek,	Upper Delaware,	9.6	
RATTLESNAKE RUN, NORTH BRANCH,	Clinton,	Rattlesnake Run,	Middle West Branch Susquehanna,	6.0	
RATTLESNAKE RUN, SOUTH BRANCH,	Clinton,	Rattlesnake Run,	Middle West Branch Susquehanna,	3.8	
*RATTLING CREEK,	Dauphin,	Wiconisco Creek,	Middle Main Susquehanna,	19.6	521
RATTLING CREEK, EAST BRANCH,	Dauphin,	Rattling Creek,	Middle Main Susquehanna,	9.6	
RATTLING CREEK, WEST BRANCH,	Dauphin,	Rattling Creek,	Middle Main Susquehanna,	8.8	
RATTLING RUN,	Adams,	Muddy Run,	Potomac,	1.4	
RATTLING RUN,	Armstrong,	Roaring Run,	Lower Allegheny,	4.5	
RATTLING RUN,	Crawford,	Lake Creek,	Upper Allegheny,	1.8	
RATTLING RUN,	Dauphin,	Stony Creek,	Lower Main Susquehanna,	2.2	
RATTLING RUN,	Perry,	Fishing Creek,	Lower Main Susquehanna,	1.2	
RATTLING RUN,	Schuylkill,	Catawissa Creek,	Lower North Branch Susquehanna,	1.9	
RATTLING RUN,	Schuylkill,	Little Mahanoy Creek,	Middle Main Susquehanna,	3.1	
RAUSCH CREEK,	Lebanon,	Stony Creek,	Lower Main Susquehanna,	3.9	
RAUSCH CREEK,	Schuylkill,	Pine Creek,	Middle Main Susquehanna,	9.8	
RAUSCH CREEK, EAST BRANCH,	Lebanon,	Rausch Creek,	Lower Main Susquehanna,	1.3	
RAUSCH CREEK, EAST BRANCH,	Schuylkill,	Rausch Creek,	Middle Main Susquehanna,	3.9	
RAUSCH CREEK, WEST BRANCH,	Schuylkill,	Rausch Creek,	Middle Main Susquehanna,	4.8	
RAUSCH (LOWER) CREEK,	Schuylkill,	Swatara Creek,	Lower Main Susquehanna,	9.0	
RAVEN CREEK,	Columbia,	Fishing Creek,	Lower North Branch Susquehanna,	11.8	
RAVEN RUN,	Schuylkill,	Shenandoah Creek,	Middle Main Susquehanna,	1.0	
RAVERS RUN,	Bedford,	Raystown Branch,	Upper Juniata,	5.1	
RAWLINS RUN,	Allegheny,	Deer Creek,	Lower Allegheny,	1.9	
RAYMOND KILL,	Pike,	Delaware River,	Upper Delaware,	24.2	
RAYNE RUN,	Indiana,	Crooked Creek,	Middle Allegheny,	6.6	
RAYS RUN,	Butler,	Bear Creek,	Middle Allegheny,	0.6	
*RAYSTOWN BRANCH,	Huntingdon,	Juniata River,	Upper Juniata,	1,012.1	522
READ RUN,	Venango,	Twomile Run,	Upper Allegheny,	1.5	
REAGAN RUN,	Fayette,	Youghiogheny River,	Monongahela,	2.4	
REASON RUN,	Fayette,	Youghiogheny River,	Monongahela,	1.5	
RED BROOK,	Wyoming,	Stony Brook,	Upper North Branch Susquehanna,	2.3	
RED CREEK,	Schuylkill,	Schuylkill River,	Lower Delaware,	5.3	
RED RUN,	Elk,	Mix Run,	Upper West Branch Susquehanna,	15.6	
RED RUN,	Franklin,	East Branch Little Antietam Creek,	Potomac,	14.4	
RED RUN,	York,	Bermudian Creek,	Lower Main Susquehanna,	9.3	
*REDBANK CREEK,	Armstrong and Clarion,	Allegheny River,	Middle Allegheny,	585.5	523

*REDBANK CREEK, NORTH FORK,	Jefferson,	Redbank Creek,	Middle Allegheny,	97.2	524
REDBANK CREEK, NORTH FORK SOUTH BRANCH,	Jefferson,	North Fork Redbank Creek,	Middle Allegheny,	7.3	
*RED CLAY CREEK,	Chester,	White Clay Creek,	Lower Delaware,	34.1 in Pa.	524
*RED CLAY CREEK, EAST BRANCH,	Chester,	Red Clay Creek,	Lower Delaware,	10.1	524
*RED CLAY CREEK, WEST BRANCH,	Chester,	Red Clay Creek,	Lower Delaware,	17.6	524
REDDENS RUN,	Indiana,	South Branch Plum Creek,	Middle Allegheny,	3.7	
REDLICK RUN,	Blair,	Adams Run,	Upper Juniata,	0.8	
REDLICK RUN,	Elk,	Bear Creek,	Middle Allegheny,	2.9	
REDLICK RUN,	Jefferson,	North Fork Redbank Creek,	Middle Allegheny,	3.4	
RED MILL BROOK,	McKean,	Potato Creek,	Upper Allegheny,	8.3	
*REDSTONE CREEK,	Fayette,	Monongahela River,	Monongahela,	108.8	525
REDSTONE (LITTLE) CREEK,	Fayette,	Monongahela River,	Monongahela,	12.7	
REED RUN,	Clarion,	Clarion River,	Middle Allegheny,	0.7	
REED RUN,	Potter,	Allegheny River,	Upper Allegheny,	4.4	
REEDS RUN,	Indiana,	Aultmans Run,	Lower Allegheny,	7.3	
REES HOLLOW,	Potter,	Allegheny River,	Upper Allegheny,	1.5	
REIDERS RUN,	Perry,	Juniata River,	Lower Juniata,	0.4	
REIDS RUN,	Clarion,	Piney Creek,	Middle Allegheny,	6.6	
REITS RUN,	Jefferson,	Little Sandy Creek,	Middle Allegheny,	3.7	
REPINE RUN,	Indiana,	South Branch Twolick Creek,	Lower Allegheny,	6.3	
REPP RUN,	Schuylkill,	Schuylkill River,	Lower Delaware,	0.6	
RESERVOIR No. 3 RUN,	Washington,	Chartiers Creek,	Main Ohio,	1.5	
RESERVOIR No. 4 RUN (or POINT LOOKOUT BRANCH),	Washington,	Chartiers Creek,	Main Ohio,	2.3	
RESLAR RUN (or RASTER RUN),	Fayette,	Indian Creek,	Monongahela,	6.8	
RETREAT RUN,	Union,	White Deer Creek,	Lower West Branch Susquehanna,	1.2	
REYNER RUN,	Clarion,	Paint Creek,	Middle Allegheny,	1.5	
REYNOLD RUN,	Warren,	Arkley Run,	Upper Allegheny,	2.5	
REYNOLDS RUN,	Lancaster,	Octoraro Creek,	Lower Main Susquehanna,	4.6	
REZNOR RUN,	Mercer,	Shenango River,	Main Ohio,	1.0	
RHINE RUN,	Warren,	Conewango Creek,	Upper Allegheny,	8.5	
RHINEY CREEK,	Susquehanna,	Snake Creek,	Upper North Branch Susquehanna,	12.1	
RHOADS RUN,	Somerset,	Calendar Run,	Lower Allegheny,	9.3	
RICE CREEK,	McKean,	Potato Creek,	Upper Allegheny,	6.3	
RICE RUN,	Somerset,	Coxe Creek,	Monongahela,	2.8	
RICES RUN,	Washington,	Castleman Run,	Main Ohio,	0.1 in Pa.	
RICHARDS RUN,	Indiana,	Conemaugh River,	Lower Allegheny,	6.7	
RICHARDSON RUN,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	8.9	
RICHARDSON RUN,	Warren,	Allegheny River,	Upper Allegheny,	0.4	
RICHEY RUN (or RITCHEY RUN),	Clarion and Venango,	Allegheny River,	Upper Allegheny,	7.5	
RIDDLE RUN,	Allegheny,	Allegheny River,	Lower Allegheny,	1.7	
RIDGE VALLEY CREEK,	Montgomery,	East Swamp Creek,	Lower Delaware,	11.0	
*RIDLEY CREEK,	Delaware,	Delaware River,	Lower Delaware,	38.2	526
RIFE RUN,	Lancaster,	Big Chickies Creek,	Lower Main Susquehanna,	6.7	
*RIGGLES GAP RUN,	Blair,	Little Juniata River,	Upper Juniata,	11.3	527
RIGHT BRANCH (See name of main stream).					
RIGHT HAND BRANCH,	McKean,	East Branch Potato Creek,	Upper Allegheny,	2.1	
RIGHTMAN BRANCH,	Clinton,	Young Womans Creek,	Middle West Branch Susquehanna,	24.4	
RILEY CREEK,	Wyoming,	Meshoppen Creek,	Upper North Branch Susquehanna,	17.7	
RINAMAN RUN,	Allegheny,	Pine Creek,	Lower Allegheny,	1.5	
RINERSBURG RUN,	Clarion,	Little Licking Creek,	Middle Allegheny,	2.6	
RING RUN,	Chester,	Brandywine Creek,	Lower Delaware,	2.1	

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RIO GRANDE RUN,	Cambria,	Laurel Run,	Lower Allegheny,	2.1	
RIPPLING RUN,	Allegheny,	Sewickley Creek,	Main Ohio,	6.1	
RISHELL RUN,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	0.5	
RITCHEY RUN (or RICHEY RUN),	Clarion and Venango.	Allegheny River,	Upper Allegheny,	7.5	
RIVER RUN,	Venango,	Oil Creek,	Upper Allegheny,	0.6	
•ROARING BRANCH,	Lycoming and Tioga.	Lycoming Creek,	Lower West Branch Susquehanna,	41.6	527
•ROARING BROOK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	57.9	528
ROARING (LITTLE) BROOK,	Lackawanna,	Roaring Brook,	Lower North Branch Susquehanna,	6.0	
ROARING (LITTLE) BROOK,	Susquehanna,	Starrucca Creek,	Upper North Branch Susquehanna,	2.9 in Pa.	
•ROARING CREEK,	Columbia and Montour.	North Branch Susquehanna River,	Lower North Branch Susquehanna,	90.3	529
ROARING CREEK,	Fulton,	Little Brush Creek,	Upper Juniata,	10.0	
•ROARING CREEK, SOUTH BRANCH,	Columbia and Northumberland.	Roaring Creek,	Lower North Branch Susquehanna,	36.9	529
ROARING (LITTLE) CREEK,	Montour and Northumberland.	North Branch Susquehanna River,	Lower North Branch Susquehanna.	6.5	
ROARING FORK,	Somerset,	Shade Creek,	Lower Allegheny,	12.8	
ROARING RUN,	Armstrong,	Kiskiminitas River,	Lower Allegheny,	14.1	
ROARING RUN (or BRUSH CREEK),	Blair,	Frankstown Branch,	Upper Juniata,	3.0	
ROARING RUN,	Bradford,	South Creek,	Upper North Branch Susquehanna.	8.0	
ROARING RUN,	Cambria,	North Branch Little Conemaugh River.	Lower Allegheny,	14.4	
ROARING RUN (or SHINGLETOWN GAP RUN).	Center,	Slab Cabin Run,	Middle West Branch Susquehanna,	4.7	
ROARING RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	12.2	
ROARING RUN,	Fulton,	Cove Creek,	Potomac,	6.1	
ROARING RUN,	Fulton,	Sideling Hill Creek,	Lower Juniata,	2.4	
ROARING RUN,	Indiana,	Aultmans Run,	Lower Allegheny,	3.3	
ROARING RUN,	Lycoming,	Muncy Creek,	Lower West Branch Susquehanna,	4.0	
ROARING RUN,	Lycoming,	Wallis Run,	Lower West Branch Susquehanna,	1.8	
ROARING RUN,	Somerset,	Quemahoning Creek,	Lower Allegheny,	11.9	
ROARING RUN,	Westmoreland,	Indian Creek,	Monongahela,	11.8	
ROARING RUN,	Wyoming,	Bowman Creek,	Upper North Branch Susquehanna,	12.6	
ROARING RUN, SOUTH BRANCH,	Wyoming,	Roaring Run,	Upper North Branch Susquehanna,	3.7	
•ROARING SPRING RUN (or PLUM CREEK).	Blair,	Frankstown Branch,	Upper Juniata,	37.8	509
ROBBIN BROOK,	McKean,	Potato Creek,	Upper Allegheny,	6.6	
ROBBS RUN,	Washington,	Robinson Run,	Main Ohio,	1.2	
ROBERT RUN,	Clearfield,	Trout Run,	Upper West Branch Susquehanna,	3.1	
ROBERTS RUN,	Cambria,	North Branch Little Conemaugh River.	Lower Allegheny,	2.3	
ROBERTS RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	0.4	
ROBERTS RUN,	Greene,	Dunkard Creek,	Monongahela,	12.1	
ROBERTS RUN,	Luzerne,	Black Creek,	Lower North Branch Susquehanna,	3.0	

ROBERTS RUN,	Venango,	Allegheny River,	Upper Allegheny,	3.4	
*ROBINSON RUN,	Allegheny,	Chartiers Creek,	Main Ohio,	40.1	530
ROBINSON RUN,	Butler,	Thorn Creek,	Main Ohio,	2.5	
ROBINSON RUN,	Greene,	Monongahela River,	Monongahela,	0.6 in Pa.	
ROBINSON RUN,	Mercer,	Little Neshannock Creek,	Main Ohio,	0.9	
ROBINSON RUN,	Washington,	Enslow Fork,	Main Ohio,	22.1	
ROBINSON RUN, NORTH FORK,	Allegheny,	Robinson Run,	Main Ohio,	13.0	
ROBINSONS RUN,	Blair,	Frankstown Branch,	Upper Juniata,	3.8	
ROCK BROOK,	McKean,	Allegheny River,	Upper Allegheny,	6.1	
*ROCK CREEK,	Adams,	Monocacy River,	Potomac,	65.3	531
ROCK RUN,	Bucks,	Common Creek,	Middle Delaware,	4.4	
ROCK RUN,	Cambria,	Chest Creek,	Upper West Branch Susquehanna,	3.7	
ROCK RUN,	Chester,	French Creek,	Lower Delaware,	3.6	
ROCK RUN,	Chester,	West Branch Brandywine Creek,	Lower Delaware,	8.1	
ROCK RUN,	Clarion,	Redbank Creek,	Middle Allegheny,	2.0	
ROCK RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	3.4	
ROCK RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	3.0	
ROCK RUN,	Fayette,	Glade Run,	Monongahela,	1.2	
ROCK RUN,	Lycoming,	Big Bear Run,	Lower West Branch Susquehanna,	0.9	
ROCK RUN,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	21.1	
ROCK RUN,	Lycoming,	Muncy Creek,	Lower West Branch Susquehanna,	10.3	
ROCK RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	1.3	
ROCK RUN,	Lycoming,	Texas Run,	Middle West Branch Susquehanna,	2.0	
ROCK RUN,	McKean,	Allegheny Portage Creek,	Upper Allegheny,	3.0	
ROCK RUN,	Tioga,	Babb Creek,	Middle West Branch Susquehanna,	4.2	
ROCK RUN,	Westmoreland,	Linn Run,	Lower Allegheny,	1.2	
ROCK RUN, FIRST BRANCH,	Lycoming,	Rock Run,	Lower West Branch Susquehanna,	4.9	
ROCK RUN, SECOND BRANCH,	Lycoming,	Rock Run,	Lower West Branch Susquehanna,	4.8	
ROCK RUN, THIRD BRANCH,	Lycoming,	Rock Run,	Lower West Branch Susquehanna,	2.0	
ROCKCAMP RUN,	Greene,	West Virginia Fork Fish Creek,	Main Ohio,	1.1 in Pa.	
ROCKDALE CREEK,	Lehigh,	Lehigh River,	Middle Delaware,	1.7	
ROCK HILL SPRING,	Union,	White Deer Creek,	Lower West Branch Susquehanna,	0.8	
ROCK HOLLOW RUN,	Warren,	Tidioute Creek,	Upper Allegheny,	7.1	
ROCKLICK CREEK,	Bedford,	Dunning Creek,	Upper Juniata,	7.1	
ROCKLICK RUN,	Butler,	Connoquenessing Creek,	Main Ohio,	1.3	
ROCK SPRING RUN,	Forest,	Blue Jay Creek,	Upper Allegheny,	0.8	
ROCKWELL CREEK,	Bradford,	Wyalusing Creek,	Upper North Branch Susquehanna,	12.0	
ROCKY RUN,	Butler,	Bull Creek,	Lower Allegheny,	4.9	
ROCKY RUN,	Delaware,	Chester Creek,	Lower Delaware,	3.0	
ROCKY RUN,	Elk,	West Clarion Creek,	Middle Allegheny,	10.5	
ROCKY RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	1.7	
ROCKY RUN,	McKean,	South Fork West Branch Potato Creek,	Upper Allegheny,	1.9	
ROCKY RUN,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	3.7	
ROCKY RUN,	Washington,	Templeton Fork,	Main Ohio,	7.0	
ROCKY HILL CREEK,	Pike,	Big Bushkill Creek,	Upper Delaware,	10.2	
ROCKY MOUNTAIN CREEK,	Franklin,	Conococheague Creek,	Potomac,	18.8	
ROCKY SPRING BRANCH,	Franklin,	Back Creek,	Potomac,	16.4	
ROGERS HOLLOW,	Wyoming,	Mehoopany Creek,	Upper North Branch Susquehanna,	2.6	
ROGUES HARBOR RUN,	Clearfield,	Chest Creek,	Upper West Branch Susquehanna,	4.8	
ROOK RUN,	Indiana,	South Branch Twolick Creek,	Lower Allegheny,	1.0	
ROOK RUN,	Jefferson,	Mahoning Creek,	Middle Allegheny,	1.6	
ROOT RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	2.5	
ROSE BROOK,	Potter,	Genesee River,	Genesee,	3.6 in Pa.	
ROSE CREEK,	Bradford,	Wyalusing Creek,	Upper North Branch Susquehanna,	7.7	

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ROSE RUN,	Jefferson,	Mahoning Creek,	Middle Allegheny,	4.0	
ROSE VALLEY CREEK,	Berks,	Schuylkill River,	Lower Delaware,	2.3	
ROSS HOLLOW,	Potter,	Allegheny River,	Upper Allegheny,	1.0	
ROSS RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	8.1	
ROSS RUN,	Indiana,	Little Mahoning Creek,	Middle Allegheny,	7.4	
ROSS RUN,	Indiana,	Yellow Creek,	Lower Allegheny,	3.1	
ROUGH RUN,	Armstrong,	Buffalo Creek,	Lower Allegheny,	18.2	
ROUGH RUN,	Columbia,	West Branch Fishing Creek,	Lower North Branch Susquehanna,	3.6	
ROUND ISLAND RUN,	Clinton,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	1.1	
ROUND MEADOW RUN,	Montgomery,	Pennypack Creek,	Lower Delaware,	1.7	
ROUPS RUN,	Center,	Moshannon Creek,	Upper West Branch Susquehanna,	2.9	
ROW RUN,	Fayette,	Redstone Creek,	Monongahela,	4.8	
RUBLES RUN,	Fayette,	Cheat River,	Monongahela,	7.8 in Pa.	
*RUDDLE RUN,	Carbon,	Lehigh River,	Middle Delaware,	4.0	532
RUDOLPH RUN,	Greene,	Dunkard Creek,	Monongahela,	10.0	
*RUFF CREEK,	Greene,	South Fork Tenmile Creek,	Monongahela,	26.9	532
RULIFFS RUN,	Monroe,	Brodheads Creek,	Upper Delaware,	5.8	
RUMMEL RUN,	Indiana,	Blacklick Creek,	Lower Allegheny,	4.7	
RUMMERFIELD CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	13.0	
RUNAWAY RUN,	Jefferson,	Redbank Creek,	Middle Allegheny,	3.0	
RUPP RUN,	Armstrong,	Garrett Run,	Middle Allegheny,	2.8	
RUSH BROOK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	5.8	
RUSH RUN,	Fayette,	Monongahela River,	Monongahela,	2.8	
RUSH RUN,	Greene,	Roberts Run,	Monongahela,	1.7	
RUSSEL CREEK,	Bradford,	Wappasening Creek,	Upper North Branch Susquehanna,	4.5	
RUSSEL RUN,	Cameron,	Hunts Run,	Upper West Branch Susquehanna,	1.6	
RUSTY RUN,	Sullivan,	Sonestown Creek,	Lower West Branch Susquehanna,	2.8	
RUTHERFORD RUN,	McKean,	East Branch Tunungwant Creek,	Upper Allegheny,	1.8	
*SACONY CREEK,	Berks,	Maiden Creek,	Lower Delaware,	55.8	533
SADDLER RUN,	Huntingdon,	Mill Creek,	Lower Juniata,	17.8	
SAGE RUN,	Venango,	Allegheny River,	Upper Allegheny,	6.1	
ST. CLAIR RUN,	Cambria,	Conemaugh River,	Lower Allegheny,	7.7	
ST. JOHNS CREEK (or ASCENSION BROOK),	Luzerne,	Lackawanna River,	Lower North Branch Susquehanna,	8.1	
ST. PATRICK RUN,	Washington,	Little Raccoon Creek,	Main Ohio,	5.1	
*SALMON CREEK,	Forest,	Tionesta Creek,	Upper Allegheny,	55.8	533
SALMON CREEK, THE BRANCH,	Forest,	Salmon Creek,	Upper Allegheny,	10.3	
SALMON (LITTLE) CREEK,	Forest,	Salmon Creek,	Upper Allegheny,	9.8	
SALMON RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	8.1	
SALSGIVER RUN,	Indiana,	North Branch Little Mahoning Creek,	Middle Allegheny,	2.3	
SALT RUN,	Cameron,	Sinnemahoning Portage,	Upper West Branch Susquehanna,	6.8	
SALT RUN,	Lycoming,	Wallis Run,	Lower West Branch Susquehanna,	6.3	
*SALTLICK CREEK,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	38.5	534
SALTLICK RUN,	Cambria,	Little Conemaugh River,	Lower Allegheny,	11.4	
SALTLICK RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	3.3	
SALTLICK RUN,	Fayette,	Dunlap Creek,	Monongahela,	4.5	

*SALTLICK (LITTLE) RUN,	Cambria,	Saltlick Run,	Lower Allegheny,	4.3	
SALT SPRING RUN,	Lycoming,	Roaring Branch,	Lower West Branch Susquehanna,	12.0	
SALT WORKS BRANCH,	McKean,	Sinnemahoning Portage,	Upper West Branch Susquehanna,	10.1	
SAMBO RUN,	Monroe,	Brodheads Creek,	Upper Delaware,	6.8	
SAMO RUN,	Cambria,	Stony Creek,	Lower Allegheny,	2.2	
SANATOGA CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	7.2	
SANBOURN RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	3.4	
SAND RUN,	Montgomery,	Wissahickon Creek,	Lower Delaware,	12.5	
SAND RUN,	Somerset,	Laurel Run,	Monongahela,	1.4	
SANDERS RUN,	Cambria,	Roaring Run,	Lower Allegheny,	0.9	
SANDY CREEK,	Allegheny,	Allegheny River,	Lower Allegheny,	3.4	
SANDY CREEK,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	18.6	
*SANDY CREEK,	Venango,	Allegheny River,	Upper Allegheny,	159.2	534
*SANDY (BIG) CREEK,	Fayette,	Cheat River,	Monongahela,	79.2 in Pa.	535
*SANDY (EAST) CREEK,	Venango,	Allegheny River,	Upper Allegheny,	105.0	536
*SANDY (LITTLE) CREEK,	Armstrong,	Redbank Creek,	Middle Allegheny,	78.1	537
*SANDY (LITTLE) CREEK,	Fayette,	Big Sandy Creek,	Monongahela,	25.1 in Pa.	537
SANDY (LITTLE) CREEK,	Venango,	Sandy Creek,	Upper Allegheny,	22.0	
SANDY (LITTLE) CREEK, MIDDLE BRANCH,	Jefferson,	Little Sandy Creek,	Middle Allegheny,	14.6	
*SANDY (SOUTH) CREEK,	Venango,	Sandy Creek,	**Upper Allegheny,**	32.2	538
SANDY RUN,	Blair,	Little Juniata River,	**Upper Juniata,**	5.6	
SANDY RUN,	Cambria,	Clearfield Creek,	Upper West Branch Susquehanna,	1.8	
SANDY RUN,	Cambria,	South Fork Little Conemaugh River,	Lower Allegheny,	8.9	
SANDY RUN,	Clinton,	Drury Run,	Middle West Branch Susquehanna,	1.7	
*SANDY RUN,	Luzerne,	Lehigh River,	**Middle Delaware,**	25.1	538
SANDY RUN,	Monroe,	Brodheads Creek,	Upper Delaware,	11.3	
SANDY RUN,	Montgomery,	Schuylkill River,	Lower Delaware,	4.8	
SANDY RUN,	Philadelphia,	Pennypack Creek,	Lower Delaware,	2.9	
SANDY (BIG) RUN,	Center,	Beauty Run,	Middle West Branch Susquehanna,	7.2	
SANDY (LITTLE) RUN,	Center,	North Fork Beech Creek,	Middle West Branch Susquehanna,	4.0	
SANDY LAKE OUTLET,	Mercer,	Sandy Creek,	Upper Allegheny,	8.1	
*SANDY LICK CREEK,	Jefferson,	Redbank Creek,	**Middle Allegheny,**	235.5	539
SANFORD RUN,	Cameron,	West Creek,	Upper West Branch Susquehanna,	5.7	
SANVANTINE CREEK,	Pike,	Saw Kill,	Upper Delaware,	4.3	
SARAH CREEK,	Huntingdon,	Raystown Branch,	Upper Juniata,	20.4	
SARBER RUN,	Wyoming,	Bowman Creek,	Upper North Branch Susquehanna,	2.4	
SARTWELL CREEK,	McKean,	Allegheny River,	Upper Allegheny,	14.4	
SARVER RUN,	Butler,	Little Buffalo Creek,	Lower Allegheny,	9.0	
SATLER RUN,	Warren,	Ackley Run,	Upper Allegheny,	4.8	
SATTERLEE RUN,	Bradford,	South Branch Towanda Creek,	Upper North Branch Susquehanna,	4.6	
*SAUCON CREEK,	Northampton,	Lehigh River,	**Middle Delaware,**	58.2	540
SAUCON CREEK, EAST BRANCH,	Northampton,	Saucon Creek,	Middle Delaware,	9.6	
*SAW CREEK (or MIDDLE BUSHKILL CREEK),	Pike,	Big Bushkill Creek,	**Upper Delaware,**	31.1	540
SAW KILL,	Pike,	Delaware River,	**Upper Delaware,**	23.7	
SAWHILL RUN,	Washington,	Buffalo Creek,	**Main Ohio,**	2.9	
SAWMILL CREEK,	Washington,	Pigeon Creek,	**Monongahela,**	4.6	
SAWMILL RUN,	Allegheny,	Ohio River,	**Main Ohio,**	19.0	
SAWMILL RUN,	Butler,	Connoquenessing Creek,	**Main Ohio,**	3.0	
SAWMILL RUN,	Clearfield,	West Branch Susquehanna River,	**Upper West Branch Susquehanna,**	4.6	
SAWMILL RUN,	Elk,	Little Toby Creek,	**Middle Allegheny,**	1.5	
SAWMILL RUN,	Jefferson,	Mahoning Creek,	**Middle Allegheny,**	4.4	
SAWMILL RUN,	Westmoreland,	Ninemile Run,	**Lower Allegheny,**	2.1	
SAWMILL RUN,	York,	Susquehanna River,	**Lower Main Susquehanna.**	4.3	

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SAXMAN RUN,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	5.9	
SCAFFOLD LICK CREEK,	McKean,	Allegheny Portage Creek,	Upper Allegheny,	5.1	
SCAHONDA CREEK,	Elk,	Elk Creek,	Middle Allegheny,	3.7	
SCHAARS RUN,	Luzerne,	Black Creek,	Lower North Branch Susquehanna,	1.0	
SCHAEFER CREEK (or SHAEFER CREEK).	Schuylkill,	West-West Branch Schuylkill River,	Lower Delaware,	1.8	
SCHAEFER RUN,	Lehigh,	Little Lehigh Creek,	Middle Delaware,	24.3	
SCHLEGEL RUN,	Montgomery,	West Swamp Creek,	Lower Delaware,	5.8	
SCHOENECK CREEK,	Northampton,	Bushkill Creek,	Upper Delaware,	14.4	
SCHOLARS RUN,	Butler,	Connoquenessing Creek,	Main Ohio,	6.9	
SCHOOL CREEK,	Lehigh,	Ontelaunee Creek,	Lower Delaware,	4.9	
SCHOOLHOUSE RUN,	Venango,	Pithole Creek,	Upper Allegheny,	1.7	
SCHOONOVER CREEK,	Wyoming,	Whitlock Creek,	Upper North Branch Susquehanna,	7.6	
•SCHRADER RUN (or SHRADER BRANCH)	Bradford,	Towanda Creek,	Upper North Branch Susquehanna,	80.9	561
SCHROCK RUN,	Somerset,	Stony Creek,	Lower Allegheny,	4.9	
•SCHUYLKILL RIVER,	Philadelphia,	Delaware River,	Lower Delaware,	1,915.8	541
•SCHUYLKILL RIVER, WEST BRANCH,	Schuylkill,	Schuylkill River,	Lower Delaware,	53.4	544
•SCHUYLKILL RIVER WEST-WEST BRANCH.	Schuylkill,	West Branch Schuylkill River,	Lower Delaware,	19.2	545
•SCHUYLKILL (LITTLE) RIVER,	Schuylkill,	Schuylkill River,	Lower Delaware,	137.9	545
SCHUYLKILL (LITTLE) RIVER, EAST BRANCH (or STILL CREEK).	Schuylkill,	Little Schuylkill River,	Lower Delaware,	9.3	
SCHUYLKILL (LITTLE) RIVER, WEST BRANCH.	Schuylkill,	Little Schuylkill River,	Lower Delaware,	4.9	
•SCHWABEN CREEK,	Northumberland,	Mahanoy Creek,	Middle Main Susquehanna,	30.1	546
SCIOTO CREEK,	Montgomery,	West Swamp Creek,	Lower Delaware,	4.6	
SCOTCH RUN,	Blair,	Burgoon Run,	Upper Juniata,	1.6	
SCOTCH RUN,	Columbia,	Catawissa Creek,	Lower North Branch Susquehanna,	9.1	
SCOTCH RUN,	Luzerne,	Black Creek,	Lower North Branch Susquehanna,	2.4	
SCOTT CREEK,	Bucks,	Delaware River,	Middle Delaware,	6.0	
SCOTT CREEK,	York,	Muddy Creek,	Lower Main Susquehanna,	5.4	
SCOTT HOLLOW,	Potter,	Phoenix Run,	Middle West Branch Susquehanna,	1.8	
SCOTT RUN,	Allegheny,	Robinson Run,	Main Ohio,	1.1	
SCOTT RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	1.7	
SCOTT RUN,	Warren,	Allegheny River,	Upper Allegheny,	2.6	
SCOTT RUN,	Washington,	Cross Creek,	Main Ohio,	9.6	
SCOUTEN BROOK,	Wyoming,	Mehoopany Creek,	Upper North Branch Susquehanna,	2.1	
SCRUB RUN,	Huntingdon,	Juniata River,	Lower Juniata,	1.7	
SCRUB GLADE RUN,	Somerset,	Casselman River,	Monongahela,	7.5	
SCRUBGRASS CREEK,	Armstrong,	Mahoning Creek,	Middle Allegheny,	10.2	
SCRUBGRASS CREEK,	Bedford,	Bobs Creek,	Upper Juniata,	19.6	
•SCRUBGRASS CREEK,	Venango,	Allegheny River,	Upper Allegheny,	39.5	547
•SCRUBGRASS (LITTLE) CREEK,	Venango,	Allegheny River,	Upper Allegheny,	26.9	547
SCRUBGRASS (LITTLE) CREEK, NORTH FORK.	Venango,	Little Scrubgrass Creek,	Upper Allegheny,	2.1	

SCRUBGRASS (LITTLE) CREEK, SOUTH FORK.	Venango,	Little Scrubgrass Creek,	Upper Allegheny,	8.9	
SCRUBGRASS RUN,	Allegheny,	Chartiers Creek,	Main Ohio,	1.3	
SEATON CREEK,	Butler,	Slippery Rock Creek,	Main Ohio,	13.8	
SECHLER RUN,	Montour,	Mahoning Creek,	Lower North Branch Susquehanna,	7.6	
SECOND BRANCH OR FORK (See name of main stream).					
•SEELY CREEK,	Bradford	Chemung River,	Upper North Branch Susquehanna,	88.2 in Pa.	548
SEESE RUN,	Somerset,	Weaver Run,	Lower Allegheny,	4.5	
SEGLOCK RUN,	Lancaster,	Furnace Run,	Lower Main Susquehanna,	3.6	
SEMICONON RUN,	Butler,	Little Connoquenessing Creek,	Main Ohio	5.2	
SENECA RUN,	Jefferson,	North Fork Redbank Creek,	Middle Allegheny,	7.6	
SENECA RUN,	Venango,	Allegheny River,	Upper Allegheny,	1.6	
SERVICE CREEK,	Beaver,	Raccoon Creek	Main Ohio,	18.2	
SERVICE (LITTLE) RUN,	Beaver,	Big Traverse Run,	Main Ohio,	5.0	
SERVICEBERRY RUN,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	2.0	
SETTLEMEYERS RUN,	Cambria,	North Branch Little Conemaugh River,	Lower Allegheny,	2.4	
SEVENMILE CREEK (or ELLICOTT RUN),	Erie,	Lake Erie,	Erie,	9.8	
SEVENMILE RUN,	Center,	Moshannon Creek,	Upper West Branch Susquehanna,	13.2	
SEVENMILE RUN,	Elk,	East Branch Clarion River,	Middle Allegheny,	18.6	
•SEWICKLEY CREEK,	Allegheny and Beaver,	Ohio River,	Main Ohio,	30.8	549
•SEWICKLEY CREEK,	Westmoreland,	Youghiogheny River,	Monongahela,	165.0	549
SEWICKLEY (LITTLE) CREEK,	Allegheny,	Ohio River,	Main Ohio,	10.3	
•SEWICKLEY (LITTLE) CREEK,	Westmoreland,	Sewickley Creek,	Monongahela,	31.5	550
•SHADE CREEK,	Huntingdon	Black Log Creek,	Lower Juniata,	27.8	551
•SHADE CREEK,	Somerset,	Stony Creek,	Lower Allegheny,	98.4	551
SHADE (BIG) RUN,	Somerset,	Casselman River,	Monongahela,	3.8 in Pa.	
SHADE MOUNTAIN STREAM,	Juniata,	Cocolamus Creek,	Lower Juniata,	1.8	
SHADES CREEK,	Luzerne,	Bear Creek,	Middle Delaware,	9.3	
SHAEFER CREEK (or SCHAEFER CREEK).	Schuylkill	West-West Branch Schuylkill River,	Lower Delaware,	1.8	
SHAFFER RUN,	Somerset,	Wills Creek,	Potomac,	12.3	
SHAFFLER RUN,	Venango,	Allegheny River,	Upper Allegheny,	2.0	
•SHAMOKIN CREEK,	Northumberland,	Susquehanna River,	Middle Main Susquehanna,	137.6	552
•SHAMOKIN (LITTLE) CREEK,	Northumberland,	Shamokin Creek,	Middle Main Susquehanna,	29.1	553
SHANERBURG CREEK,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	6.1	
SHANNON RUN,	Butler,	Muddy Creek,	Main Ohio	3.9	
SHANNON RUN,	Greene,	Dunkard Creek,	Monongahela,	10.0	
SHANNON (LITTLE) RUN,	Greene,	Shannon Run,	Monongahela,	2.5	
SHANTY RUN,	Elk,	Bear Creek,	Middle Allegheny,	2.6	
SHARP RUN,	Greene,	Rudolph Run,	Monongahela,	1.5	
•SHAVER CREEK,	Huntingdon	Frankstown Branch,	Upper Juniata,	75.2	553
•SHAVERS CREEK,	Bedford,	Raystown Branch,	Upper Juniata,	98.5	554
•SHAWNEE BRANCH	Bedford,	Raystown Branch,	Upper Juniata,	38.3	554
SHAWNEE CREEK,	Monroe,	Delaware River,	Upper Delaware,	5.2	
SHAWS RUN	Tioga,	Bellman Run,	Upper North Branch Susquehanna,	1.5	
SHEARERS CREEK,	Lancaster,	Big Chickies Creek,	Lower Main Susquehanna,	6.4	
SHEIK CREEK,	Wyoming,	South Branch Tunkhannock Creek,	Upper North Branch Susquehanna,	9.2	
SHELDON BROOK,	McKean,	Blacksmith Run,	Upper Allegheny,	1.4	
SHENANDOAH CREEK,	Schuylkill,	Mahanoy Creek,	Middle Main Susquehanna,	10.7	
•SHENANGO RIVER,	Lawrence,	Beaver River,	Main Ohio,	1,080.0	555
•SHENANGO (LITTLE) RIVER,	Mercer,	Shenango River,	Main Ohio,	105.1	557

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
SHEPMAN RUN,	Lycoming,	Little Muncy Creek,	Lower West Branch Susquehanna,	1.7	
SHEPPARD RUN,	McKean,	East Branch Tunungwant Creek,	Upper Allegheny,	3.8	
SHERIFF (LOWER) RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	5.1	
SHERIFF (UPPER) RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	4.6	
*SHERMAN CREEK,	Perry,	Susquehanna River,	Lower Main Susquehanna,	250.3	558
SHERMAN RUN,	Fayette,	Youghiogheny River,	Monongahela,	2.6	
SHERMAN RUN,	McKean,	Marvin Creek,	Upper Allegheny,	1.5	
SHERMAN VALLEY RUN,	Bedford,	Raystown Branch,	Upper Juniata,	10.3	
SHERRICK RUN,	Westmoreland,	Jacobs Creek,	Monongahela,	4.7	
SHESHICKON RUN,	Lycoming,	Miller Run,	Lower West Branch Susquehanna,	3.1	
*SHICKSHINNY CREEK,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	33.9	559
SHICKSHINNY (LITTLE) CREEK,	Luzerne,	Shickshinny Creek,	Lower North Branch Susquehanna,	9.8	
SHIMEL RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	2.0	
SHIN HOLLOW,	Tioga,	Pine Creek,	Middle West Branch Susquehanna,	1.9	
SHINGLE RUN,	Cambria,	Solomon Run,	Lower Allegheny,	0.6	
SHINGLE RUN,	Clinton,	Queens Run,	Middle West Branch Susquehanna,	2.5	
SHINGLE RUN,	Columbia,	West Branch Run,	Lower North Branch Susquehanna,	1.6	
SHINGLE RUN,	Luzerne,	Huntington Creek,	Lower North Branch Susquehanna,	1.6	
SHINGLE RUN,	Somerset,	Dark Shade Creek,	Lower Allegheny,	3.2	
SHINGLE BOLT RUN,	Potter,	East Fork First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	2.3	
SHINGLETOWN GAP RUN (or ROARING RUN),	Center,	Slab Cabin Run,	Middle West Branch Susquehanna,	4.7	
SHINTOWN RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	8.4	
SHIPE RUN,	Washington,	Little Tenmile Creek,	Monongahela,	1.3	
SHIPPEN RUN,	Jefferson,	North Fork Redbank Creek,	Middle Allegheny,	4.5	
SHIRKS RUN,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	2.3	
SHIRLEY RUN,	Franklin,	Means Run,	Lower Main Susquehanna,	9.8	
SHOEMAKER RUN,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	1.6	
SHOEMAKER RUN,	Somerset,	Whites Creek,	Monongahela,	0.8	
*SHOHOLA CREEK,	Pike,	Delaware River,	Upper Delaware,	84.1	559
SHORES BRANCH,	Huntingdon,	Little Trough Creek,	Upper Juniata,	1.4	
SHORT CREEK,	Washington,	Tenmile Creek,	Monongahela,	8.1	
SHORT RUN,	Potter,	Cross Fork,	Middle West Branch Susquehanna,	2.3	
SHORT BEND RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	2.3	
*SHOUPS RUN,	Bedford,	Raystown Branch,	Upper Juniata,	21.3	560
SHOUSE RUN,	Allegheny,	Ohio River,	Main Ohio,	1.0	
SHOVE CREEK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	0.6	
*SHRADER BRANCH (or SCHRADER RUN),	Bradford,	Towanda Creek,	Upper North Branch Susquehanna,	80.9	561
SHREVE RUN,	Erie,	South Branch French Creek,	Upper Allegheny,	2.7	
SHREVE RUN,	Venango,	Oil Creek,	Upper Allegheny,	0.9	
SHREVE (EAST) RUN,	Crawford,	Oil Creek,	Upper Allegheny,	2.3	
SHREVE (WEST) RUN,	Crawford,	Oil Creek,	Upper Allegheny,	2.6	
SHREWSBURY BRANCH (or TROUT RUN),	York,	South Branch Codorus Creek,	Lower Main Susquehanna,	3.2	

SHRONTZ CREEK (or CANADOCHLY CREEK),	York,	Susquehanna River,	Lower Main Susquehanna,	3.3	
SHRYOCK RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,..	6.3	
SHUFS RUN,	Cambria,	North Branch Blacklick Creek,	Lower Allegheny,	2.3	
SHULL RUN,	Venango,	Allegheny River,	Upper Allegheny,	5.2	
SHUMAN RUN,	Cambria,	South Branch Blacklick Creek,	Lower Allegheny,	2.2	
SHUTERS RUN (or SULPHUR RUN),	Westmoreland,	Jacobs Creek,	Monongahela,	4.0	
SHUPES RUN (or SHUTES RUN),	Fayette,	Cove Run,	Monongahela,	5.7	
SHUTES RUN (or SHUPES RUN),	Fayette,	Cove Run,	Monongahela,	5.7	
SHY BEAVER CREEK,	Huntingdon,	Raystown Branch,	Upper Juniata,	10.2	
SIBBOLD RUN,	Forest,	Allegheny River,	Upper Allegheny,	1.5	
SICILY RUN,	McKean,	West Clarion Creek,	Middle Allegheny,	4.0	
SIDE RUN,	Indiana,	Repine Run,	Lower Allegheny,	2.5	
•SIDELING HILL CREEK,	Fulton,	Potomac River,	Potomac,	70.4 in Pa.	562
•SIDELING HILL CREEK,	Huntingdon,	Aughwick Creek,	Lower Juniata,	96.5	562
SIDELING HILL CREEK, EAST BRANCH,	Bedford,	Sideling Hill Creek,	Potomac,	16.0	
SIDELING HILL CREEK, WEST BRANCH,	Bedford,	Sideling Hill Creek,	Potomac,	19.4	
SILFIS RUN (or MOHANNON CREEK),	Schuylkill,	Schuylkill River,	Lower Delaware,	11.1	
SILL RUN,	Warren,	Allegheny River,	Upper Allegheny,	3.2	
SILVER CREEK,	Butler,	Bear Creek,	Middle Allegheny,	7.2	
SILVER CREEK,	Elk,	West Branch Clarion River,	Middle Allegheny,	7.5	
SILVER CREEK,	Schuylkill,	Schuylkill River,	Lower Delaware,	3.2	
SILVER CREEK,	Susquehanna,	Snake Creek,	Upper North Branch Susquehanna,	21.1	
SILVER RUN,	Elk,	Elk Creek,	Middle Allegheny,	5.4	
SILVER MINE RUN,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	0.6	
SIMMONS RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	4.7	
SIMON HOLLOW,	Warren,	Hatch Run,	Upper Allegheny,	1.1	
SINDELDECKER RUN,	Fulton,	Licking Creek,	Potomac,	8.3	
SINGERS GAP RUN,	Huntingdon,	Hill Valley Creek,	Lower Juniata,	3.8	
•SINKING CREEK,	Center,	Penns Creek,	Middle Main Susquehanna,	47.5	563
•SINKING RUN,	Blair,	Little Juniata River,	Upper Juniata,	8.2	563
•SINNEMAHONING CREEK,	Clinton,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	1,032.7	564
•SINNEMAHONING CREEK, BENNETT BRANCH.	Cameron,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	356.6	231
•SINNEMAHONING CREEK, DRIFTWOOD BRANCH.	Cameron,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	316.3	335
•SINNEMAHONING CREEK, FIRST FORK,	Cameron,	Sinnemahoning Creek,	Upper West Branch Susquehanna,	272.5	565
•SINNEMAHONING CREEK, FIRST FORK, EAST FORK.	Potter,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	54.2	565
SINNEMAHONING CREEK, FIRST FORK, SOUTH FORK.	Potter,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,..	18.1	
•SINNEMAHONING PORTAGE,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	76.6	566
SIPES RUN,	Armstrong,	Buffalo Creek,	Lower Allegheny,	1.8	
SISTERS RUN,	Venango,	Allegheny River,	Upper Allegheny,	0.5	
SIX RUN,	Greene,	Pennsylvania Fork Dunkard Creek,	Monongahela,	0.7	
SIXMILE CREEK,	Erie,	Lake Erie,	Erie,	17.9	
SIXMILE RUN,	Beaver,	Ohio River,	Main Ohio,	8.9	
SIXMILE RUN,	Bedford,	Raystown Branch,	Upper Juniata,	11.5	
SIXMILE RUN,	Center,	Moshannon Creek,	Upper West Branch Susquehanna,..	21.1	
SIXMILE RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	8.0	
SIXMILE RUN, NORTH FORK,	Warren,	Sixmile Run,	Upper Allegheny,	3.8	
SIXPENNY CREEK,	Berks,	Schuylkill River,	Lower Delaware,	4.6	
•SIXTEENMILE CREEK,	Erie,	Lake Erie,	Erie,	17.6	567
SIZER RUN,	Cameron,	Sinnemahoning Portage,	Upper West Branch Susquehanna,..	5.0	
•SKINNER CREEK,	McKean,	Allegheny River,	Upper Allegheny,	11.7	567

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*SKIPPACK CREEK,	Montgomery,	Perkiomen Creek,	Lower Delaware,	55.2	568
SKUNK RUN,	Mercer,	Otter Creek,	Main Ohio,	1.8	
SLAB RUN,	Sullivan,	Loyalsock Creek,	Lower West Branch Susquehanna,	3.4	
*SLAB CABIN RUN,	Center,	Spring Creek,	Middle West Branch Susquehanna,	36.5	568
SLATE CREEK,	Westmoreland,	Jacks Run,	Monongahela,	7.7	
*SLATE RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	34.4	569
SLATE (LITTLE) RUN,	Tioga,	Pine Creek,	Middle West Branch Susquehanna,	2.3	
SLATEFORD CREEK,	Northampton,	Delaware River,	Upper Delaware,	3.2	
SLATELICK RUN,	Cambria,	Beaverdam Run,	Upper West Branch Susquehanna,	20.2	
SLATER RUN,	Warren,	Allegheny River,	Upper Allegheny,	2.1	
SLAUGHTER RUN,	Erie,	Baskin Run,	Upper Allegheny,	5.5	
SLIDE ISLAND DRAFT,	Tioga,	Cedar Run,	Middle West Branch Susquehanna,	5.5	
SLIFE RUN,	Wyoming,	Bowman Creek,	Upper North Branch Susquehanna,	2.1	
*SLIPPERY ROCK CREEK,	Lawrence,	Connoquenessing Creek,	Main Ohio,	403.8	569
SLIPPERY ROCK CREEK, NORTH BRANCH,	Butler,	Slippery Rock Creek,	Main Ohio,	16.3	
*SLIPPERY ROCK CREEK, SOUTH BRANCH,	Butler,	Slippery Rock Creek,	**Main** Ohio,	39.4	570
SLOAN RUN,	Clarion,	Piney Creek,	Middle Allegheny,	4.6	
SLOAT BROOK,	Pike,	Saw Kill,	Upper Delaware,	2.9	
SLUM CREEK,	Schuylkill,	Panther Creek,	Lower Delaware,	1.3	
SMILEY RUN,	Fayette,	Big Meadow Run,	Monongahela,	1.4	
SMITH BROOK,	McKean,	Potato Creek,	Upper Allegheny,	4.5	
SMITH CREEK,	Greene,	South Fork Tenmile Creek,	Monongahela,	10.7	
SMITH CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	2.8 in Pa.	
SMITH RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	2.4	
SMITH RUN,	Huntingdon,	Juniata River,	Lower Juniata,	12.7	
SMITH RUN,	Jefferson,	Ugly Run,	Middle Allegheny,	0.8	
SMITH RUN,	McKean,	Instanter Creek,	Middle Allegheny,	4.0	
SMITH RUN,	Washington,	Tenmile Creek,	Monongahela,	1.5	
SMITH CABIN RUN,	Wyoming,	North Branch Mehoopany Creek,	Upper North Branch Susquehanna,	1.3	
SMITHS RUN,	Beaver,	Ohio River,	Main Ohio,	0.6	
SMOKER RUN,	Blair,	Frankstown Branch,	Upper Juniata,	2.5	
SMOKY RUN,	Blair,	Beaverdam Creek,	Upper Juniata,	5.2	
SNAIRS HOLLOW,	Blair,	Clover Creek,	Upper Juniata,	1.0	
*SNAKE CREEK,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	70.0 in Pa.	571
SNAKE (LITTLE) CREEK,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	7.0 in Pa.	
SNAKE RUN,	Beaver,	Crows Run,	Main Ohio,	3.2	
SNAKE RUN,	Lawrence,	Beaver River,	Main Ohio,	3.2	
SNAKE RUN,	Lycoming,	Big Bear Run,	Lower West Branch Susquehanna,	0.7	
SNAKESPRING VALLEY RUN,	Bedford,	Raystown Branch,	Upper Juniata,	14.5	
SNYDER RUN,	Clearfield,	Chest Creek,	Upper West Branch Susquehanna,	5.3	
SNYDER RUN,	Clearfield,	Chest Creek,	Upper West Branch Susquehanna,	2.3	
SNYDER RUN,	Westmoreland,	Hendricks Run,	Lower Allegheny,	8.2	
SNYDERS RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	3.7	
SOLATER RUN,	Jefferson,	Sandy Lick Creek,	Middle Allegheny,	13.6	

*SOLOMON CREEK (or BUTTONWOOD CREEK).	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	17 6	269
SOLOMON RUN,	Cambria,	Stony Creek,	Lower Allegheny,	8.5	
SOUTH BRANCH OR FORK (See name of main stream).					
SOUTH BROOK,	Wyoming,	Mehoopany Creek,	Upper North Branch Susquehanna,..	4.2	
SOUTH CREEK,	Bradford,	Johnson Creek,	Upper North Branch Susquehanna,..	2.8	
*SOUTH CREEK,	Bradford,	Seely Creek,	Upper North Branch Susquehanna,..	30.3 in Pa.	572
*SOUTH CREEK,	Bradford,	Sugar Creek,	Upper North Branch Susquehanna,..	30.6	572
SOUTH RUN,	Jefferson,	Little Toby Creek,	Middle Allegheny,	1.1	
SOUTH RUN,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	2.4	
SOUTH RUN,	Perry,	Laurel Run,	Lower Main Susquehanna,	1.5	
SOUTH RUN,	Wyoming,	Bowman Creek,	Upper North Branch Susquehanna,	3.7	
SOUTH (See also significant name).					
SOUTHEAST BRANCH (See name of main stream).					
SPARROW RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	3.9	
SPAULDING CREEK,	Bradford,	North Branch Susquehanna River, ..	Upper North Branch Susquehanna,..	4.1	
SPAULDING RUN,	Crawford,	East Branch Oil Creek,	Upper Allegheny,	5.5	
SPEERS RUN,	Washington,	Little Chartiers Creek,	Main Ohio,	1.8	
SPENCER RUN,	Blair,	Beaverdam Branch Frankstown Branch.	Upper Juniata,	3.7	
SPENCER RUN,	Columbia,	West Creek,	Lower North Branch Susquehanna,..	1.9	
SPENCER RUN,	Erie,	South Branch French Creek,	Upper Allegheny,	5.2	
SPICER BROOK,	Bedford,	Raystown Branch,	Upper Juniata,	2.9	
SPICEWOOD RUN,	Clinton	Kettle Creek,	Middle West Branch Susquehanna,	3.4	
SPIESE RUN,	Schuylkill,	Catawissa Creek,	Lower North Branch Susquehanna,	0.8	
SPRA RUN,	Armstrong,	Cowanshannock Creek,	Middle Allegheny,	2.9	
*SPRING BROOK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,..	57.6	573
SPRING BROOK,	Sullivan,	Painter Den Creek,	Lower West Branch Susquehanna,..	2.6	
SPRING CREEK,	Berks,	Little Northkill Creek,	Lower Delaware,	2.1	
SPRING CREEK,	Berks,	Monocacy Creek,	Lower Delaware,	5.4	
*SPRING CREEK,	Berks,	Tulpehocken Creek,	Lower Delaware,	31.0	574
*SPRING CREEK,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	146.0	574
SPRING CREEK,	Dauphin,	Susquehanna River,	Lower Main Susquehanna,	11.6	
SPRING CREEK,	Dauphin,	Swatara Creek,	Lower Main Susquehanna,	23.9	
*SPRING CREEK,	Elk,	Clarion River,	Middle Allegheny,	87.3	575
SPRING CREEK,	Huntingdon,	Tuscarora Creek,	Lower Juniata,	13.0	
*SPRING CREEK,	Lehigh,	Lehigh River,	Middle Delaware,	2.8	576
SPRING CREEK,	Union,	White Deer Hole Creek,	Lower West Branch Susquehanna,..	16.9	
*SPRING CREEK,	Warren,	Brokenstraw Creek,	Upper Allegheny,	31.5	576
SPRING CREEK, EAST BRANCH,	Forest,	Spring Creek,	Middle Allegheny,	24.6	
SPRING CREEK, NORTH BRANCH,	Warren,	Spring Creek,	Upper Allegheny,	5.6	
SPRING CREEK, NORTHWEST BRANCH,	Warren	Spring Creek,	Upper Allegheny,	4.5	
*SPRING (MIDDLE) CREEK (or MEANS RUN).	Cumberland and Franklin.	Conodoguinet Creek,	Lower Main Susquehanna,	50.3	438
SPRING RUN,	Adams,	Middle Creek,	Potomac,	2.3	
SPRING RUN,	Clearfield,	Beaver Run,	Upper West Branch Susquehanna,..	4.5	
SPRING RUN,	Clearfield,	Chest Creek,	Upper West Branch Susquehanna,..	2.1	
SPRING RUN,	Clinton,	McElhatton Creek,	Middle West Branch Susquehanna,	3.9	
SPRING RUN,	Clinton,	McElhatton Creek,	Middle West Branch Susquehanna,	1.9	
*SPRING RUN,	Elk,	Trout Run,	Upper West Branch Susquehanna,..	35.8	577
SPRING RUN,	Fulton,	Spring Valley Run,	Potomac,	1.1	
SPRING RUN,	Huntingdon,	Laura Run,	Upper Juniata,	0.6	
SPRING RUN,	Lycoming,	Muncy Creek,	Lower West Branch Susquehanna,..	2.1	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
SPRING RUN,	Northumberland,	Dry Run,	Lower West Branch Susquehanna,	2.3	
SPRING (BIG) RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	9.8	
SPRING (BIG) RUN,	Lancaster,	Mill Creek,	Lower Main Susquehanna,	5.8	
SPRING (BIG) RUN,	Westmoreland,	Conemaugh River,	Lower Allegheny,	5.7	
SPRING (BIG) RUN,	York,	Fishing Creek,	Lower Main Susquehanna,	1.6	
SPRING GARDEN RUN,	Allegheny,	Allegheny River,	Lower Allegheny,	2.0	
SPRING VALLEY RUN,	Fulton,	Cove Creek,	Potomac,	9.8	
*SPRUCE CREEK,	Huntingdon,	Little Juniata River,	Upper Juniata,	111.7	578
SPRUCE CREEK,	Lackawanna,	White Oak Run,	Lower North Branch Susquehanna,	1.5	
SPRUCE HOLLOW,	Indiana,	Brush Creek,	Lower Allegheny,	1.9	
SPRUCE RUN,	Allegheny,	Ohio River,	Main Ohio,	2.3	
SPRUCE RUN,	Armstrong,	Cowanshannock Creek,	Middle Allegheny,	2.6	
SPRUCE RUN,	Center,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	6.1	
SPRUCE RUN,	Columbia,	Little Fishing Creek,	Lower North Branch Susquehanna,	8.4	
SPRUCE RUN,	Cumberland,	Yellow Breeches Creek,	Lower Main Susquehanna,	4.5	
SPRUCE RUN,	Fayette,	Mounts Creek,	Monongahela,	2.9	
SPRUCE RUN,	Somerset,	North Branch Quemahoning Creek,	Lower Allegheny,	3.0	
SPRUCE RUN,	Somerset,	Shade Creek,	Lower Allegheny,	2.5	
*SPRUCE RUN,	Union,	Buffalo Creek,	Lower West Branch Susquehanna,	27.6	578
SPRUCE RUN,	Westmoreland,	Conemaugh River,	Lower Allegheny,	6.0	
SPRUCE CABIN RUN,	Monroe,	Brodheads Creek,	Upper Delaware,	2.2	
SQUARE TIMBER RUN,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	4.3	
SQUAW RUN,	Allegheny,	Allegheny River,	Lower Allegheny,	8.6	
SQUIRREL RUN,	Beaver,	Ohio River,	Main Ohio,	0.6	
STABLE RUN,	Luzerne,	Black Creek,	Lower North Branch Susquehanna,	0.4	
STACK RUN,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,	4.5	
*STAFFORD MEADOW BROOK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	13.1	579
STAMM RUN (or STUNN RUN),	Somerset,	Flaugherty Creek,	Monongahela,	2.5	
*STANDING STONE CREEK,	Huntingdon,	Frankstown Branch,	Upper Juniata,	113.9	579
STANDING STONE CREEK, EAST BRANCH,	Huntingdon,	Standing Stone Creek,	Upper Juniata,	18.5	
STANDING STONE RUN,	Elk,	Bear Creek,	Middle Allegheny,	6.3	
STANTON RUN,	McKean,	Marvin Creek,	Upper Allegheny,	2.0	
*STARRUCCA CREEK,	Susquehanna,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	77.4 in Pa.	580
STARRUCCA CREEK, EAST BRANCH,	Susquehanna,	Starrucca Creek,	Upper North Branch Susquehanna,	13.2 in Pa.	
STARRUCCA CREEK, EAST BRANCH, NORTH BRANCH,	Susquehanna,	East Branch Starrucca Creek,	Upper North Branch Susquehanna,	4.0 in Pa.	
STATE LINE RUN,	Warren,	Allegheny River,	Upper Allegheny,	9.7 in Pa.	
STAFFORD BROOK,	Bradford,	Wyalusing Creek,	Upper North Branch Susquehanna,	0.4	
STAUFFER RUN,	Lancaster,	Conestoga Creek,	Lower Main Susquehanna,	5.4	
STAUFFER RUN,	Westmoreland,	Jacobs Creek,	Monongahela,	5.0	
STEAM MILL RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	2.0	
STEEL RUN,	Jefferson,	Mill Creek,	Middle Allegheny,	2.3	
STEELS RUN,	Westmoreland,	Turtle Creek,	Monongahela,	4.9	
STEER BROOK,	Potter,	Allegheny River,	Upper Allegheny,	1.4	
STEER RUN,	Indiana,	Mahoning Creek,	Middle Allegheny,	1.6	

STEP CREEK,	Clarion,	Paint Creek,	Middle Allegheny,	6.3	
STEPHENHOUSE RUN,	Tioga,	Crooked Creek,	Upper North Branch Susquehanna,	5.3	
*STERLING RUN,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	25.2	581
STETLERS CREEK,	Luzerne,	Wapwallopen Creek,	Lower North Branch Susquehanna,	0.2	
STEVENS CREEK,	Wayne,	West Branch Wallenpaupack Creek,	Upper Delaware,	11.0	
STEVENS RUN,	Adams,	Rock Creek,	Potomac,	1.0	
STEWARD RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	1.5	
STEWART RUN,	Cambria,	South Branch Blacklick Creek,	Lower Allegheny,	7.0	
STEWART RUN,	Clinton,	Kettle Creek,	Middle West Branch Susquehanna,	0.9	
STEWART RUN,	Greene,	Pursley Creek,	Monongahela,	1.8	
STEWART RUN,	Indiana,	Blacklick Creek,	Lower Allegheny,	7.3	
STEWART RUN,	Lancaster,	West Branch Octoraro Creek,	Lower Main Susquehanna,	5.6	
STEWART RUN,	Venango,	Allegheny River,	Upper Allegheny,	11.0	
STEWARTS RUN,	Crawford,	French Creek,	Upper Allegheny,	11.1	
STEWARTS RUN,	Fayette,	Youghiogheny River,	Monongahela,	0.3	
STILL CREEK (or EAST BRANCH LITTLE SCHUYLKILL RIVER).	Schuylkill,	Little Schuylkill River,	Lower Delaware,	9.3	
STILLHOUSE RUN,	Adams,	Conococheague Creek,	Potomac,	0.7	
STILLHOUSE RUN,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	2.8	
STILLWATER CREEK,	Warren,	Conewango Creek,	Upper Allegheny,	16.3 in Pa.	
STIMSONS RUN,	Berks,	Hay Creek,	Lower Delaware,	0.4	
STINES RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	10.0	
STIRLING RUN,	Center,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	2.0	
STIVER RUN,	Indiana,	Canoe Creek,	Middle Allegheny,	2.0	
STOCKMAN RUN,	Beaver,	Beaver River,	Main Ohio,	2.2	
STOFFEN RUN,	Lycoming	Pine Creek,	Middle West Branch Susquehanna,	1.3	
STONE RUN,	Chester,	Octoraro Creek,	Lower Main Susquehanna,	1.0 in Pa.	
STONE RUN,	Crawford,	Conneaut Creek,	Erie,	7.1	
STONE RUN,	Westmoreland,	Conemaugh River,	Lower Allegheny,	12.5	
STONE CABIN RUN,	Dauphin,	East Branch Rattling Creek,	Middle Main Susquehanna,	2.1	
STONE MOUNTAIN RUN,	Monroe,	Brodheads Creek,	Upper Delaware,	2.3	
STONER RUN,	Blair,	Little Juniata River,	Upper Juniata,	1.8	
STONY BROOK,	Wyoming,	Mehoopany Creek,	Upper North Branch Susquehanna,	5.7	
STONY CREEK (or ANTIETAM CREEK),	Berks,	Schuylkill River,	Lower Delaware,	17.6	
*STONY CREEK,	Cambria,	Conemaugh River,	Lower Allegheny,	465.5	581
STONY CREEK,	Cambria,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	7.6	
STONY CREEK,	Carbon,	Lehigh River,	Middle Delaware,	12.1	
*STONY CREEK,	Dauphin,	Susquehanna River,	Lower Main Susquehanna,	37.3	582
STONY CREEK,	Delaware,	Darby Creek,	Lower Delaware,	2.9	
STONY CREEK (or STONY CABIN CREEK).	Luzerne,	Cranberry Creek,	Lower North Branch Susquehanna,	5.2	
STONY CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	20.3	
*STONY CREEK,	Schuylkill,	Schuylkill River,	Lower Delaware,	3.7	583
*STONY FORK,	Tioga,	Babb Creek,	Middle West Branch Susquehanna,	44.4	584
STONY FORK, WEST BRANCH,	Tioga,	Stony Fork,	Middle West Branch Susquehanna,	8.0	
STONY RUN,	Berks,	Maiden Creek,	Lower Delaware,	8.8	
STONY RUN,	Butler,	Connoquenessing Creek,	Main Ohio,	8.8	
STONY RUN,	Chester,	Schuylkill River,	Lower Delaware,	5.4	
STONY RUN,	Clinton	Drury Run,	Middle West Branch Susquehanna,	1.1	
STONY RUN,	Fayette	Big Sandy Creek,	Monongahela,	8.2	
STONY RUN,	Jefferson,	Clover Run	Middle Allegheny,	1.1	
STONY RUN,	Juniata,	Cocolamus Creek,	Lower Juniata,	15.0	
STONY RUN,	Lancaster,	Cocalico Creek,	Lower Main Susquehanna,	4.8	
STONY RUN,	Snyder,	Swift Run,	Middle Main Susquehanna,	1.6	
STONY RUN,	York,	Beaver Creek	Lower Main Susquehanna,	4.5	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
STONY RUN,	York,	Fishers Run,	Lower Main Susquehanna,	7.1	
STONY RUN,	York,	Yellow Breeches Creek,	Lower Main Susquehanna,	2.3	
STONY CABIN CREEK (or STONY CREEK).	Luzerne,	Cranberry Creek,	Lower North Branch Susquehanna,..	5.2	
STONYCAMP RUN,	Allegheny,	Squaw Run,	Lower Allegheny,	0.8	
STONYLICK RUN,	Potter,	Phoenix Run,	Middle West Branch Susquehanna,	1.3	
STOREHOUSE RUN,	Warren,	Conewango Creek,	Upper Allegheny,	5.7	
STRAIGHT CREEK,	Elk,	East Branch Clarion River,	Middle Allegheny,	20.4	
STRAIGHT CREEK, SOUTH BRANCH,	Elk,	Straight Creek,	Middle Allegheny,	6.9	
STRAIGHT RUN,	Forest,	Spring Creek,	Middle Allegheny,	1.2	
STRAIGHT RUN,	Indiana,	North Branch Little Mahoning Creek,	Middle Allegheny,	6.7	
STRAIGHT RUN,	Tioga,	Marsh Creek,	Middle West Branch Susquehanna,	7.6	
STRAIGHT RUN, LEFT BRANCH,	Tioga,	Straight Run,	Middle West Branch Susquehanna,	3.6	
STRAIGHT RUN, RIGHT BRANCH,	Tioga,	Straight Run,	Middle West Branch Susquehanna,	2.2	
STRATTON RUN,	Jefferson,	Clarion River,	Middle Allegheny,	1.9	
STRAYER RUN,	Cambria,	St. Clair Run,	Lower Allegheny,	1.5	
STREETS RUN,	Allegheny,	Monongahela River,	Monongahela,	10.3	
STRICKLER RUN,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	6.1	
STRODE RUN,	Mifflin,	Juniata River,	Lower Juniata,	10.9	
STROUP RUN,	Clarion,	Mill Creek,	Middle Allegheny,	0.9	
STUCK HOLLOW,	Fayette,	Hall Run,	Monongahela,	3.8	
STUMP CREEK,	Clearfield,	Mahoning Creek,	Middle Allegheny,	3.2	
STUMP RUN,	Franklin,	Conococheague Creek,	Potomac,	1.9	
STUMP RUN,	Schuylkill,	Little Schuylkill River,	Lower Delaware,	1.4	
STUMPS RUN,	Schuylkill,	Lorberry Creek,	Lower Main Susquehanna,	1.1	
STUNN RUN (or STAMM RUN),	Somerset,	Flaugherty Creek,	Monongahela,	2.5	
SUCKER RUN,	Chester,	West Branch Brandywine Creek,	Lower Delaware,	4.9	
SUGAR BROOK,	Bradford,	South Creek,	Upper North Branch Susquehanna,..	13.9	
SUGAR CREEK,	Armstrong,	Allegheny River,	Middle Allegheny,	17.0	
•SUGAR CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	190.5	584
SUGAR CREEK,	Huntingdon,	Great Trough Creek,	Upper Juniata,	16.5	
•SUGAR CREEK,	Venango,	French Creek,	Upper Allegheny,	172.8	585
•SUGAR CREEK, EAST BRANCH,	Venango,	Sugar Creek,	Upper Allegheny,	48.6	585
•SUGAR CREEK, MIDDLE BRANCH,	Venango,	Sugar Creek,	Upper Allegheny,	43.7	586
SUGAR CREEK, NORTH BRANCH,	Crawford,	Middle Branch Sugar Creek,	Upper Allegheny,	12.5	
SUGAR CREEK, WEST BRANCH,	Bradford,	Sugar Creek,	Upper North Branch Susquehanna,..	13.6	
•SUGAR (LITTLE) CREEK,	Crawford,	French Creek,	Upper Allegheny,	45.3	586
SUGAR RUN,	Armstrong,	Crooked Creek,	Middle Allegheny,	2.6	
•SUGAR RUN,	Blair,	Beaverdam Branch Frankstown Branch,	Upper Juniata,	9.5	587
SUGAR RUN,	Blair,	Little Juniata River,	Upper Juniata,	4.7	
SUGAR RUN,	Crawford,	Shenango River,	Main Ohio,	9.5	
SUGAR RUN,	Greene,	South Fork Tenmile Creek,	Monongahela,	1.3	
SUGAR RUN,	Lycoming,	Muncy Creek,	Lower West Branch Susquehanna,..	10.3	
SUGAR RUN,	Perry,	Juniata River,	Lower Juniata,	2.8	
•SUGAR RUN,	Warren,	Allegheny River,	Upper Allegheny,	47.8	588

SUGAR RUN,	Washington,	Mingo Creek,	Monongahela,	1.3	
SUGAR RUN,	Wyoming,	Bowman Creek,	Upper North Branch Susquehanna,	1.8	
SUGAR RUN, NORTH BRANCH,	McKean,	Sugar Run,	Upper Allegheny,	16.3	
SUGAR RUN, SOUTH BRANCH,	McKean,	Sugar Run,	Upper Allegheny,	20.2	
SUGAR VALLEY,	Venango,	Allegheny River,	Upper Allegheny,	4.8	
SUGARCAMP RUN,	Armstrong,	Pine Run,	Middle Allegheny,	1.4	
SUGARCAMP RUN,	Clearfield,	Sandy Lick Creek,	Middle Allegheny,	7.4	
SUGARCAMP RUN,	Clinton,	Bald Eagle Creek,	Middle West Branch Susquehanna,	1.7	
SUGARCAMP RUN,	Huntingdon,	Shoups Run,	Upper Juniata,	1.8	
SUGARCAMP RUN,	Indiana,	Mahoning Creek,	Middle Allegheny,	2.5	
SUGARCAMP RUN,	Indiana,	South Branch Plum Creek,	Middle Allegheny,	4.6	
SUGARCAMP RUN,	Jefferson,	North Fork Redbank Creek,	Middle Allegheny,	1.5	
SUGARCAMP RUN,	Washington,	Buffalo Creek,	Main Ohio,	9.8	
SUGARCAMP RUN,	Westmoreland,	Armel Run,	Lower Allegheny,	...	
SUGAR CANE RUN,	Lycoming,	West Mill Creek,	Lower West Branch Susquehanna,	3.0	
SUGAR GROVE RUN,	Huntingdon,	Juniata River,	Lower Juniata,	5.4	
•SUGAR RUN CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	54.4	588
SUGAR WORKS RUN,	Tioga,	Lycoming Creek,	Lower West Branch Susquehanna,	7.5	
SULLIVAN RUN,	Butler,	Connoquenessing Creek,	Main Ohio,	1.0	
SULPHUR RUN,	Center,	Big Sandy Run,	Middle West Branch Susquehanna,	0.8	
SULPHUR RUN,	Indiana,	Kiskiminitas River,	Lower Allegheny,	1.8	
SULPHUR RUN (or SHUPERS RUN),	Westmoreland,	Jacobs Creek,	Monongahela	4.0	
SUMMERS CREEK,	Susquehanna,	North Branch Wyalusing Creek,	Upper North Branch Susquehanna,	5.3	
SUMMIT LAKE CREEK,	Lackawanna,	Leggett Creek,	Lower North Branch Susquehanna,	3.3	
SUNFISH RUN,	Allegheny,	Monongahela River,	Monongahela,	1.5	
SURVEYOR RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	4.6	
•SUSQUEHANNA RIVER,	Lancaster and York	Chesapeake Bay,	Susquehanna,	27,400.0	589
•SUSQUEHANNA RIVER, NORTH BRANCH,	Northumberland,	Susquehanna River,	Susquehanna,	11,277.0	591
•SUSQUEHANNA RIVER, WEST BRANCH,	Northumberland and Union,	Susquehanna River,	Susquehanna,	6,913.0	593
SUTTERLEE CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	9.9	
SUTTON CREEK,	Luzerne,	Coray Creek,	Upper North Branch Susquehanna,	5.8	
SWABIAN CREEK (or SWOPE CREEK),	Lehigh,	Little Lehigh Creek,	Middle Delaware,	12.4	
SWALE BROOK,	Pike,	Raymond Kill,	Upper Delaware,	1.8	
SWAMP BROOK,	Pike,	Lackawaxen River,	Upper Delaware,	9.9	
SWAMP CREEK,	Elk,	East Branch Clarion River,	Middle Allegheny,	2.8	
SWAMP CREEK,	Somerset,	Casselman River,	Monongahela,	3.0	
•SWAMP (EAST) CREEK,	Montgomery,	Perkiomen Creek,	Lower Delaware,	49.0	596
•SWAMP (WEST) CREEK,	Montgomery,	Perkiomen Creek,	Lower Delaware,	54.7	596
SWAMP RUN,	Butler,	Muddy Creek,	Main Ohio,	6.7	
SWAMP RUN,	Mercer,	Wolf Creek,	Main Ohio,	11.2	
SWAMP RUN,	Warren,	Little Brokenstraw Creek,	Upper Allegheny,	4.0	
SWAMP LEDGE RUN,	McKean,	South Branch Kinzua Creek,	Upper Allegheny,	1.5	
SWARR RUN,	Lancaster,	Little Conestoga Creek,	Lower Main Susquehanna,	8.7	
SWARTZ RUN,	Cambria,	Clearfield Creek,	Upper West Branch Susquehanna,	5.5	
•SWATARA CREEK,	Dauphin,	Susquehanna River,	Lower Main Susquehanna,	567.4	597
•SWATARA CREEK, EAST BRANCH,	Schuylkill,	Swatara Creek,	Lower Main Susquehanna,	35.0	598
•SWATARA (LITTLE) CREEK,	Lebanon,	Swatara Creek,	Lower Main Susquehanna,	96.4	599
SWATARA (LITTLE) CREEK,	Schuylkill,	Swatara Creek,	Lower Main Susquehanna,	22.0	
SWEET ROCK CREEK,	Bedford,	Town Creek,	Potomac,	11.9	
SWIFT RUN,	Adams,	Conewago Creek,	Lower Main Susquehanna,	12.8	
SWIFT RUN,	Mifflin,	Penns Creek,	Middle Main Susquehanna,	3.8	
SWIFT RUN,	Schuylkill,	Schuylkill River,	Lower Delaware,	1.4	
SWIFT RUN,	Snyder,	Middle Creek,	Middle Main Susquehanna,	11.8	
SWIFTWATER CREEK,	Monroe,	Analomink Creek,	Upper Delaware,	10.1	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
SWITZER CREEK,	Lehigh,	Jordan Creek,	Middle Delaware,	6.4	
SWITZER RUN,	Union,	Penns Creek,	Middle Main Susquehanna,	10.3	
SWOPE CREEK (or SWABIAN CREEK),	Lehigh,	Little Lehigh Creek,	Middle Delaware,	12.4	
TACKER RUN,	Fayette,	Dunbar Creek,	Monongahela,	2.0	
TACKER RUN,	Fayette,	Gist Run,	Monongahela,	2.3	
TACONY CREEK,	Philadelphia,	Frankford Creek,	Lower Delaware,	20.5	
TACONY (LITTLE) CREEK,	Philadelphia,	Frankford Creek,	Lower Delaware,	4.7	
TAFTON RUN,	Pike,	Wallenpaupack Creek	Upper Delaware,	3.2	
TAGG RUN,	Cumberland,	Mountain Creek,	Lower Main Susquehanna,	4.8	
*TANGASCOOTACK CREEK,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	37.0	600
TANGASCOOTACK CREEK, NORTH BRANCH,	Clinton,	Tangascootack Creek,	Middle West Branch Susquehanna,	16.8	
TANGLEFOOT RUN,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	1.2	
TAR RUN,	Jefferson,	Redbank Creek,	Middle Allegheny,	2.9	
TAR RUN,	Schuylkill,	Mill Creek,	Lower Delaware,	0.9	
TARMAN RUN,	Schuylkill,	Schuylkill River,	Lower Delaware,	0.4	
TARR KILL,	Venango,	East Sandy Creek,	Upper Allegheny,	12.2	
TATMAN RUN,	Huntingdon,	Raystown Branch,	Upper Juniata,	14.3	
TAWNEY RUN,	Allegheny,	Allegheny River,	Lower Allegheny,	2.6	
TAYLER RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	5.6	
TAYLOR RUN,	Chester,	East Branch Brandywine Creek,	Lower Delaware,	5.6	
TAYLOR RUN,	Greene,	Pennsylvania Fork Dunkard Creek,	Monongahela,	0.6	
TAYLOR RUN,	Lawrence,	Slippery Rock Creek,	Main Ohio,	13.4	
TAYLOR RUN,	McKean,	Bell Run,	Upper Allegheny,	1.5	
TAYLOR RUN,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	3.9	
TAYLORS RUN,	Washington,	Pigeon Creek,	Monongahela,	3.5	
TEA RUN,	Mifflin,	East Branch Kishacoquillas Creek,	Lower Juniata,	5.1	
TEAKETTLE RUN,	Cambria,	North Branch Blacklick Creek,	Lower Allegheny,	3.8	
TEARING RUN,	Indiana,	Twolick Creek,	Lower Allegheny,	4.7	
TEMPLE CREEK,	Erie,	Conneaut Creek,	Erie,	12.2	
TEMPLETON FORK,	Washington,	Enslow Fork,	Main Ohio,	20.8	
*TENMILE CREEK,	Greene and Washington,	Monongahela River,	Monongahela,	338.2	600
*TENMILE CREEK, SOUTH FORK,	Greene,	Tenmile Creek,	Monongahela,	199.3	601
*TENMILE (LITTLE) CREEK,	Washington,	Tenmile Creek,	Monongahela,	27.4	602
TENMILE RUN,	Columbia,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	8.3	
TENMILE RUN,	Fulton,	Little Aughwick Creek,	Lower Juniata,	3.2	
TENMILE RUN,	Luzerne,	Bear Creek,	Middle Delaware,	7.2	
TEVEBAU RUN,	Beaver,	Ohio River,	Main Ohio,	2.6	
*TEXAS RUN (or ZIMMERMAN RUN),	Lycoming,	Little Pine Creek,	Middle West Branch Susquehanna,	42.6	602
THAD SHANTY RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	1.3	
THE BRANCH (See name of main stream).					
THIRD BRANCH (See name of main stream).					
THIRD GAP,	Union,	White Deer Creek,	Lower West Branch Susquehanna,	0.7	
THOM RUN,	Allegheny,	Chartiers Creek,	Main Ohio,	3.3	

THOMPSON RUN,	Allegheny,	Bull Run,	Monongahela,	2.7	
THOMPSON RUN,	Allegheny,	Turtle Creek,	Monongahela,	17.6	
THOMPSON RUN (or ABERS CREEK),	Allegheny,	Turtle Creek,	Monongahela,	11.0	
THOMPSON RUN,	Beaver,	Beaver River,	Main Ohio,	1.5	
*THOMPSON RUN,	Crawford,	Oil Creek,	Upper Allegheny,	33.3	603
THOMPSON RUN,	Erie,	Bentley Run,	Upper Allegheny	0.4	
THOMPSON RUN,	Warren,	Allegheny River,	Upper Allegheny,	4.1	
THOMPSON RUN, NORTHEAST BRANCH,	Allegheny,	Thompson Run,	Monongahela,	2.5	
THOMPSONS HOLLOW,	Cumberland,	Means Run,	Lower Main Susquehanna,	23.9	
*THORN CREEK,	Butler,	Connoquenessing Creek,	Main Ohio,	42.3	603
THORN CREEK (or THORN RUN),	Butler,	Connoquenessing Creek,	Main Ohio,	7.4	
THORN RUN,	Allegheny,	Ohio River,	Main Ohio,	1.9	
THORN RUN (or THORN CREEK),	Butler,	Connoquenessing Creek,	Main Ohio,	7.4	
THORN RUN,	Westmoreland,	Beaver Run,	Lower Allegheny,	6.1	
THREE (LOWER) RUNS,	Clinton,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	4.7	
THREE (UPPER) RUNS,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	18.5	
THREE FALLS RUN,	Bradford,	Bentley Creek,	Upper North Branch Susquehanna,	1.5	
THREELICK RUN,	Somerset,	Doctors Run,	Upper Juniata,	11.6	
THREEMILE RUN,	Bucks,	Tohickon Creek,	Middle Delaware,	7.7	
THREEMILE RUN,	Cameron,	North Creek,	Upper West Branch Susquehanna,	5.3	
THREEMILE RUN	McKean,	Kinzua Creek,	Upper Allegheny,	5.2	
THREE ROCK RUN,	Center,	Beech Creek,	Middle West Branch Susquehanna,	1.8	
*THREE SPRINGS CREEK,	Huntingdon,	Aughwick Creek,	Lower Juniata,	36.5	604
THREE SPRINGS RUN,	Blair,	Tipton Run,	Upper Juniata,	4.2	
THUNDERSHOWER RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	2.7	
TIDIOUTE CREEK,	Warren,	Allegheny River,	Upper Allegheny,	17.8	
TIM WES RUN,	Tioga,	Crooked Creek,	Upper North Branch Susquehanna,	2.5	
TINICUM CREEK,	Bucks,	Delaware River,	Middle Delaware,	23.6	
TINKER RUN,	Clearfield,	Montgomery Creek,	Upper West Branch Susquehanna,	1.1	
TINKER RUN,	Westmoreland,	Brush Creek,	Monongahela,	4.6	
TINKLEPAUGH CREEK (or MILLERS CREEK),	Lackawanna,	Wildcat Creek,	Lower North Branch Susquehanna,	3.9	
*TIOGA RIVER,	Tioga,	Chemung River	Upper North Branch Susquehanna,	689.5 in Pa.	604
TIOGA JUNCTION CREEK,	Tioga,	Tioga River,	Upper North Branch Susquehanna,	11.5	
*TIONESTA CREEK,	Forest,	Allegheny River,	Upper Allegheny,	485.4	605
*TIONESTA CREEK, EAST BRANCH,	Warren,	South Branch Tionesta Creek,	Upper Allegheny,	38.7	606
*TIONESTA CREEK, SOUTH BRANCH,	Warren,	Tionesta Creek,	Upper Allegheny,	86.0	607
TIONESTA (LITTLE) CREEK,	Forest,	Allegheny River,	Upper Allegheny,	10.7	
*TIPTON RUN,	Blair,	Little Juniata River,	Upper Juniata,	17.8	607
TOAD CREEK,	Lehigh,	Little Lehigh Creek,	Middle Delaware,	8.0	
*TOBY CREEK,	Clarion,	Clarion River,	Middle Allegheny,	36.6	608
*TOBY CREEK,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	37.4	608
*TOBY (LITTLE) CREEK,	Clarion,	Toby Creek,	Middle Allegheny,	26.4	609
*TOBY (LITTLE) CREEK,	Elk,	Clarion River,	Middle Allegheny,	124.6	610
TOBY RUN,	Montour,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	0.8	
*TOBYHANNA CREEK,	Carbon and Monroe.	Lehigh River,	Middle Delaware,	139.1	611
*TOHICKON CREEK,	Bucks,	Delaware River,	Middle Delaware,	112.1	611
TOM RUN,	Cumberland,	Mountain Creek,	Lower Main Susquehanna,	4.0	
TOM RUN,	Forest,	Clarion River,	Middle Allegheny,	9.3	
TOM RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	3.0	
TOMB RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	3.3	
TOMBS RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	4.2	
TOMBS RUN FORK,	Lycoming,	Tombs Run,	Middle West Branch Susquehanna,	2.3	
TOM CABIN HOLLOW RUN,	Potter,	Pine Creek,	Middle West Branch Susquehanna,	1.0	
TOMHICKEN CREEK,	Schuylkill,	Catawissa Creek,	Lower North Branch Susquehanna	20.6	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
TOMHICKEN (LITTLE) CREEK,	Schuylkill,	Tomhicken Creek,	Lower North Branch Susquehanna,..	3.8	
TOM JACK CREEK,	Bradford,	Sugar Creek,	Upper North Branch Susquehanna,..	24.2	
TOMLINSON RUN,	State of West Virginia	Ohio River,	Main Ohio,	4.2 in Pa.	
TOMLINSON RUN, NORTH FORK,	Beaver,	Tomlinson Run,	Main Ohio,	0.5 in Pa.	
TOMLINSON RUN, SOUTH FORK,	Beaver,	Tomlinson Run,	Main Ohio,	3.7 in Pa.	
•TOMS CREEK,	Adams,	Monocacy River,	Potomac,	59.4 in Pa.	612
TOMS CREEK,	Pike,	Delaware River,	Upper Delaware,	9.6	
TOMS RUN,	Allegheny,	Ohio River,	Main Ohio,	2.2	
TOMS RUN,	Greene,	Pennsylvania Fork Dunkard Creek, ..	Monongahela,	17.4	
TOMS RUN,	Indiana,	Conemaugh River,	Lower Allegheny,	7.5	
TOMS RUN,	York,	Muddy Creek,	Lower Main Susquehanna,	10.4	
TOMS RUN, EAST BRANCH,	York,	Toms Run,	Lower Main Susquehanna,	2.8	
•TONOLOWAY (LITTLE) CREEK,	Fulton,	Great Tonoloway Creek,	Potomac,	60.9	613
TOPPER RUN,	Cambria,	South Fork Little Conemaugh River,	Lower Allegheny,	1.4	
TORRY RUN,	Crawford,	Conneautte Creek,	Upper Allegheny,	3.9	
TOWAMENCIN CREEK,	Montgomery,	Skippack Creek,	Lower Delaware,	10.8	
•TOWANDA CREEK,	Bradford,	North Branch Susquehanna River, ..	Upper North Branch Susquehanna,	282.5	613
•TOWANDA CREEK, NORTH BRANCH, ..	Bradford,	Towanda Creek,	Upper North Branch Susquehanna,	29.4	614
•TOWANDA CREEK, SHRADER BRANCH (or SCHRADER RUN),	Bradford,	Towanda Creek,	Upper North Branch Susquehanna,	80.9	561
•TOWANDA CREEK, SOUTH BRANCH, ...	Bradford,	Towanda Creek,	Upper North Branch Susquehanna,	51.2	614
•TOWN CREEK,	Bedford,	Potomac River,	Potomac,	80.4 in Pa.	615
TOWN RUN,	Clarion,	Redbank Creek,	Middle Allegheny,	9.4	
TOWNER RUN,	Cameron,	West Creek,	Upper West Branch Susquehanna,..	1.2	
TOWNLEY RUN,	Erie,	West Branch French Creek,	Upper Allegheny,	4.8	
TOWNLINE RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	2.0	
•TOWNLINE RUN (or ISER RUN),	Somerset,	Casselman River,	Monongahela,	12.9	381
TOWNSHIP RUN,	Blair,	Frankstown Branch,	Upper Juniata,	0.7	
TOWNSHIP RUN (or NORTH MOUNTAIN RUN),	Franklin,	West Branch Conococheague Creek...	Potomac,	2.9	
TOWNSHIP LINE RUN,	Westmoreland, ..	Sewickley Creek,	Monongahela,	6.4	
TOYLAND RUN,	Sullivan,	Muncy Creek,	Lower West Branch Susquehanna...	1.4	
TRACY RUN,	Warren,	Allegheny River,	Upper Allegheny,	0.7	
TRAMPMILL RUN,	Beaver,	Raccoon Creek,	Main Ohio,	3.6	
TRAP RUN,	Clarion,	Mill Creek,	Middle Allegheny,	1.0	
TRAUGER RUN,	Westmoreland, ...	Sewickley Creek,	Monongahela,	11.1	
TRAVERSE (BIG) RUN,	Beaver,	Raccoon Creek,	Main Ohio,	20.0	
TRAVERSE (LITTLE) RUN,	Beaver,	Raccoon Creek,	Main Ohio,	7.2	
•TREASTER VALLEY RUN,	Mifflin,	East Branch Kishacoquillas Creek, ..	Lower Juniata,	33.9	616
TREXLER RUN,	Schuylkill,	Little Catawissa Creek,	Lower North Branch Susquehanna,..	4.5	
TRINDLE SPRING RUN,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	17.0	
TROUGH CREEK,	Fulton,	Sideling Hill Creek,	Potomac,	2.2	
•TROUGH (LITTLE) CREEK,	Huntingdon,	Great Trough Creek,	Upper Juniata,	32.1	616
TROUGH SPRING CREEK,	Huntingdon,	Spring Creek,	Lower Juniata,	4.9	
TROUPS CREEK,	Tioga,	Cowanesque River,	Upper North Branch Susquehanna...	13.7 in Pa.	

TROUT BROOK,	Luzerne,	Toby Creek,	Lower North Branch Susquehanna,..	4.6	
TROUT BROOK,	Potter,	Allegheny River,	Upper Allegheny,	4.4	
•TROUT CREEK,	Lehigh,	Lehigh River,	Middle Delaware,	19.6	617
TROUT CREEK,	Luzerne,	Spring Brook,	Lower North Branch Susquehanna,..	6.5	
TROUT CREEK,	Monroe,	Lehigh River,	Middle Delaware,	15.4	
TROUT CREEK,	Montgomery,	Schuylkill River,	Lower Delaware,	8.5	
TROUT (LITTLE) CREEK,	Lehigh,	Trout Creek,	Middle Delaware,	4.9	
TROUT FORK,	Clinton,	Kettle Creek,	Middle West Branch Susquehanna,..	9.9	
TROUT HOLLOW,	Fayette,	Big Meadow Run,	Monongahela,	2.6	
TROUT RUN,	Allegheny,	Montour Run,	Main Ohio,	1.0	
TROUT RUN,	Berks,	Birch Creek,	Lower Delaware,	1.0	
TROUT RUN,	Berks,	Manatawny Creek,	Lower Delaware,	2.4	
TROUT RUN,	Berks,	Schuylkill River,	Lower Delaware,	1.6	
•TROUT RUN,	Cambria,	Little Conemaugh River,	Lower Allegheny,	9.8	
TROUT RUN,	Center,	Moshannon Creek,	Upper West Branch Susquehanna,	11.0	618
•TROUT RUN,	Chester,	White Clay Creek,	Lower Delaware,	1.4	
TROUT RUN,	Clearfield,	West Branch Susquehanna River, ...	Upper West Branch Susquehanna,	40.3	618
TROUT RUN,	Crawford,	Hammond Run,	Upper Allegheny,	0.7	
TROUT RUN,	Cumberland,	Yellow Breeches Creek,	Lower Main Susquehanna,	3.2	
TROUT RUN,	Delaware,	Crum Creek,	Lower Delaware,	2.8	
•TROUT RUN,	Elk,	Bennett Branch,	Upper West Branch Susquehanna,	54.5	619
TROUT RUN,	Erie,	Lake Erie,	Erie,	5.5	
TROUT RUN,	Franklin,	Conodoguinet Creek,	Lower Main Susquehanna,	4.8	
TROUT RUN (or BUCK RUN),	Franklin,	West Branch Conococheague Creek...	Potomac,	11.5	
TROUT RUN,	Huntingdon,	Little Aughwick Creek,	Lower Juniata,	4.8	
TROUT RUN,	Indiana,	Findlay Run,	Lower Allegheny,	6.4	
TROUT RUN,	Jefferson,	Big Run,	Middle Allegheny,	2.0	
TROUT RUN,	Jefferson,	Sandy Lick Creek,	Middle Allegheny,	9.3	
TROUT RUN,	Lancaster,	Climbers Run,	Lower Main Susquehanna,	3.6	
TROUT RUN,	Lebanon,	Swatara Creek,	Lower Main Susquehanna,	8.8	
TROUT RUN,	Lycoming,	Lycoming Creek,	Lower West Branch Susquehanna,..	16.2	
TROUT RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,..	11.8	
TROUT RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,..	11.0	
TROUT RUN,	Montgomery,	Mill Creek,	Lower Delaware,	1.3	
TROUT RUN,	Northumberland,..	Shamokin Creek,	Middle Main Susquehanna,	3.0	
TROUT RUN,	Perry,	Fishing Creek,	Lower Main Susquehanna,	2.8	
TROUT RUN,	Perry,	Little Juniata Creek,	Lower Main Susquehanna,	4.5	
TROUT RUN,	Sullivan,	Muncy Creek,	Lower West Branch Susquehanna,..	4.7	
TROUT RUN,	Venango,	Scrubgrass Creek,	Upper Allegheny,	1.4	
TROUT RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	1.2	
TROUT RUN,	Westmoreland, ...	Coalpit Run,	Lower Allegheny,	5.1	
TROUT RUN,	Westmoreland, ...	McGee Run,	Lower Allegheny,	0.5	
TROUT RUN,	York,	Codorus Creek,	Lower Main Susquehanna,	0.9	
TROUT RUN (or SHREWSBURY BRANCH),	York,	South Branch Codorus Creek,	Lower Main Susquehanna,	3.2	
TROUT RUN, NORTH BRANCH,	Elk,	Trout Run,	Upper West Branch Susquehanna,..	2.6	
TROUT (LITTLE) RUN,	Clearfield,	Trout Run,	Upper West Branch Susquehanna,..	12.1	
TROUTMAN RUN,	Forest,	Clarion River,	Middle Allegheny,	1.4	
TROWBRIDGE CREEK,	Susquehanna, ...	North Branch Susquehanna River, ..	Upper North Branch Susquehanna,..	4.5	
TRUCKER RUN,	Franklin,	East Branch Little Antietam Creek,	Potomac,	1.7	
TRUMAN RUN,	Center,	Mountain Branch Moshannon Creek,..	Upper West Branch Susquehanna,..	4.2	
TUB RUN,	Crawford,	Caldwell Creek,	Upper Allegheny,	1.3	
TUBBS RUN,	Forest,	Allegheny River,	Upper Allegheny,	7.9	
TUBBS HOLLOW RUN,	Potter,	Genesee Fork,	Middle West Branch Susquehanna,..	1.1	
•TUB MILL CREEK,	Westmoreland, ...	Conemaugh River,	Lower Allegheny,	66.0	619

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TUB MILL RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	1.9	
TUB MILL RUN,	Bedford,	Raystown Branch,	Upper Juniata,	11.1	
TUB MILL RUN,	Fayette,	Youghiogheny River,	Monongahela,	5.7	
TUB MILL RUN,	Somerset,	Casselman River,	Monongahela,	14.4	
TUCKERS RUN,	Clearfield,	Chest Creek,	Upper West Branch Susquehanna,	1.0	
TUCQUAN CREEK,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	6.4	
TULE RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	2.2	
•TULPEHOCKEN CREEK,	Berks,	Schuylkill River,	Lower Delaware,	217.6	620
TUMBLING RUN,	Franklin,	East Branch Little Antietam Creek,	Potomac,	2.1	
TUMBLING RUN,	Franklin,	Shirley Run,	Lower Main Susquehanna,	1.7	
TUMBLING RUN,	Schuylkill,	Schuylkill River,	Lower Delaware,	7.2	
•TUNEUNGWANT CREEK,	McKean,	Allegheny River,	Upper Allegheny,	160.0	621
•TUNEUNGWANT CREEK, EAST BRANCH,	McKean,	Tuneungwant Creek,	Upper Allegheny,	62.1	622
•TUNEUNGWANT CREEK, WEST BRANCH	McKean	Tuneungwant Creek,	Upper Allegheny,	41.6 in Pa.	622
•TUNKHANNOCK CREEK,	Carbon and Monroe.	Tobyhanna Creek,	Middle Delaware,	50.1	623
•TUNKHANNOCK CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	414.4	623
•TUNKHANNOCK CREEK, EAST BRANCH,	Susquehanna,	Tunkhannock Creek,	Upper North Branch Susquehanna,	65.8	624
•TUNKHANNOCK CREEK, SOUTH BRANCH	Wyoming,	Tunkhannock Creek,	Upper North Branch Susquehanna,	98.3	625
•TUNKHANNOCK (UPPER) CREEK,	Monroe,	Tobyhanna Creek,	Middle Delaware,	28.3	626
TURKEY CREEK,	Erie,	Lake Erie,	Erie,	10.2 in Pa.	
TURKEY RUN,	Clarion,	Clarion River,	Middle Allegheny	13.9	
TURKEY RUN,	Crawford,	Conneaut Lake Creek,	Upper Allegheny,	7.0	
TURKEY RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	4.2	
TURKEY RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	3.6	
TURKEY RUN,	Washington,	Wheeling Creek,	Main Ohio,	0.4 in Pa.	
TURNER CREEK,	Potter,	Genesee River,	Genesee,	8.0	
TURNER RUN,	Clarion,	Coon Creek,	Upper Allegheny,	0.9	
TURNER RUN,	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	4.3	
TURNIP RUN,	Jefferson,	Big Run,	Middle Allegheny,	2.3	
TURNIP RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	8.3	
•TURTLE CREEK,	Allegheny,	Monongahela River,	Monongahela,	146.6	626
TURTLE CREEK,	Union,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	11.9	
TURTLE RUN,	Luzerne,	Black Creek,	Lower North Branch Susquehanna,	1.8	
•TUSCARORA CREEK,	Juniata,	Juniata River,	Lower Juniata,	256.1	628
TUSCARORA CREEK,	Snyder,	Penns Creek,	Middle Main Susquehanna,	4.8	
•TUSCARORA CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	34.8	628
•TUSCARORA (LITTLE) CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	8.0	629
TUSTIN RUN,	Greene,	Hoovers Run,	Monongahela,	2.1	
TUTTLE RUN,	Forest,	South Branch Tionesta Creek,	Upper Allegheny,	0.9	
TWEED CREEK,	Chester,	Octoraro Creek,	Lower Main Susquehanna,	6.1	
TWELVEMILE CREEK,	Erie,	Lake Erie,	Erie,	13.1	
TWENTYMILE CREEK,	Erie,	Lake Erie,	Erie,	36.9	
TWIN RUN,	Clinton,	Beech Creek,	Middle West Branch Susquehanna,	1.4	
TWINLICK RUN,	Elk,	Bear Creek,	Middle Allegheny,	2.1	

*TWOLICK CREEK,	Indiana,	Blacklick Creek,	Lower Allegheny,	190.3	629
TWOLICK CREEK, NORTH BRANCH,	Indiana,	Twolick Creek,	Lower Allegheny,	11.1	
TWOLICK CREEK, SOUTH BRANCH,	Indiana,	Twolick Creek,	Lower Allegheny,	21.9	
TWO LOG RUN,	Chester,	West Branch Brandywine Creek,	Lower Delaware,	2.8	
TWOMILE CREEK,	McKean,	Allegheny River,	Upper Allegheny,	12.3	
TWOMILE RUN,	Beaver,	Ohio River,	Main Ohio,	6.9	
TWOMILE RUN,	Clinton,	Kettle Creek,	Middle West Branch Susquehanna,	4.7	
TWOMILE RUN,	Forest,	Salmon Creek,	Upper Allegheny,	0.5	
TWOMILE RUN,	Indiana,	Crooked Creek,	Middle Allegheny,	1.7	
TWOMILE RUN,	Somerset,	Quemahoning Creek,	Lower Allegheny,	5.4	
TWOMILE RUN,	Venango,	Allegheny River,	Upper Allegheny,	17.8	
TWOMILE RUN (or LOWER TWOMILE RUN),	Venango,	Allegheny River,	Upper Allegheny,	11.6	
*TWOMILE RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	29.1	630
TWOMILE RUN,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	5.4	
TWOMILE RUN, WEST FORK,	Venango,	Twomile Run,	Upper Allegheny,	3.0	
TWOMILE (LOWER) RUN (or TWOMILE RUN),	Venango,	Allegheny River,	Upper Allegheny,	11.6	
TWO ROCK RUN,	Center,	Beech Creek,	Middle West Branch Susquehanna,	3.2	
TYLER RUN,	Clearfield,	Bennett Branch,	Upper West Branch Susquehanna,	7.9	
UBEN RUN (or OVEN RUN),	Somerset,	Stony Creek,	Lower Allegheny,	6.9	
UGLY RUN,	Jefferson,	Canoe Creek,	Middle Allegheny,	8.4	
ULSHAFER RUN,	Schuylkill,	Catawissa Creek,	Lower North Branch Susquehanna,	2.1	
ULSH GAP RUN,	Snyder,	Middle Creek,	Middle Main Susquehanna,	3.3	
UNGER RUN,	Crawford,	Randolph Run,	Main Ohio,	2.3	
UNION RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	2.3	
UNION RUN,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	7.4	
UPPER (See significant name).					
UPPER NORTH BRANCH (See name of main stream).					
VALLEY CREEK,	Chester,	East Branch Brandywine Creek,	Lower Delaware,	20.7	
VALLEY CREEK,	Chester and Montgomery,	Schuylkill River,	Lower Delaware,	23.8	
VALLEY RUN,	Chester,	Beaver Creek,	Lower Delaware,	4.8	
VALLEY RUN,	Delaware,	Meadow Brook,	Lower Delaware,	0.6	
VALLEY RUN,	Lancaster,	Buck Run,	Lower Main Susquehanna,	5.8	
VANARSDALE RUN,	Warren,	Jackson Run,	Upper Allegheny,	4.4	
VANCES RUN,	Washington,	Little Chartiers Creek,	Main Ohio,	12.0	
VANDERMARK CREEK,	Pike,	Delaware River,	Upper Delaware,	5.5	
VAN HORN RUN,	Crawford,	French Creek,	Upper Allegheny,	5.8	
VANSCOYOC RUN,	Blair,	Bald Eagle Creek,	Upper Juniata,	8.5	
VANTINE BROOK,	Pike,	Saw Kill,	Upper Delaware,	1.3	
VARNERS RUN,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	4.1	
VAUGHAN RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	3.8	
*VETERA BRANCH (or NORTH BRANCH BLACKLICK CREEK),	Cambria and Indiana,	Blacklick Creek,	Lower Allegheny,	69.7	240
VICTORY RUN,	Venango,	Sandy Creek,	Upper Allegheny,	3.1	
VINEYARD RUN,	Franklin,	East Branch Little Antietam Creek,	Potomac,	2.3	
VINEYARD RUN,	Jefferson,	Little Toby Creek,	Middle Allegheny,	3.0	
VIRGIN RUN,	Fayette,	Youghiogheny River,	Monongahela,	4.6	
VOUGHT CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	3.5	
WABASH CREEK,	Schuylkill,	Little Schuylkill River,	Lower Delaware,	4.1	
WAGNER RUN,	Forest,	East Branch Spring Creek,	Middle Allegheny,	2.0	
WAGNER RUN,	Schuylkill,	West Branch Schuylkill River,	Lower Delaware	1.2	
WAGONER RUN,	McKean,	West Branch Tunungwant Creek,	Upper Allegheny,	0.8	

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WAGONROAD RUN,	Greene,	Pennsylvania Fork Fish Creek,	Main Ohio,	3.7	
WAITE RUN,	Forest,	Ross Run,	Upper Allegheny,	3.3	
WALCOTT CREEK,	McKean,	Potato Creek,	Upper Allegheny,	10.1	
WALFORD RUN,	Westmoreland,	Kiskiminitas River,	Lower Allegheny,	9.8	
WALKER RUN,	Indiana,	Crooked Creek,	Middle Allegheny,	2.3	
WALKER LAKE CREEK,	Pike,	Delaware River,	Upper Delaware,	12.0	
WALLACE RUN,	Beaver,	Beaver River,	Main Ohio,	4.7	
•WALLACE RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	27.7	631
WALLACE RUN,	Clearfield,	Little Clearfield Creek,	Upper West Branch Susquehanna,	1.8	
WALLACE RUN,	Fayette,	Monongahela River,	Monongahela,	2.4	
WALLACKS BRANCH,	Bedford,	Bobs Creek,	Upper Juniata,	5.2	
•WALLENPAUPACK CREEK,	Pike and Wayne,	Lackawaxen River,	Upper Delaware,	239.6	632
•WALLENPAUPACK CREEK, EAST BRANCH,	Pike,	Wallenpaupack Creek,	Upper Delaware,	30.9	632
•WALLENPAUPACK CREEK, WEST BRANCH,	Wayne,	Wallenpaupack Creek,	Upper Delaware,	70.7	633
WALLEY RUN,	Forest,	Coon Creek,	Upper Allegheny,	3.5	
•WALLIS RUN,	Lycoming,	Loyalsock Creek,	Lower West Branch Susquehanna,	34.7	634
WALLIS RUN, EAST BRANCH,	Lycoming,	Wallis Run,	Lower West Branch Susquehanna,	5.0	
•WALNUT CREEK,	Erie,	Lake Erie,	Erie,	36.7	634
WALNUT RUN,	Chester,	Broad Run,	Lower Delaware,	0.5	
WALNUT RUN,	Dauphin,	Manada Creek,	Lower Main Susquehanna,	3.3	
WALNUT RUN,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	2.6	
WALTERS RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	0.2	
WALTON RUN,	Philadelphia,	Byberry Creek,	Lower Delaware,	2.9	
WALTZ CREEK,	Northampton,	Martins Creek,	Upper Delaware,	12.4	
WAMPUM RUN,	Lawrence,	Beaver River,	Main Ohio,	2.5	
WANAMIE RUN,	Luzerne,	Newport Creek,	Lower North Branch Susquehanna,	6.4	
•WAPPASENING CREEK,	Bradford	North Branch Susquehanna River,	Upper North Branch Susquehanna,	61.6 in Pa.	635
WAPPASENING (LITTLE) CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	6.0 in Pa.	
•WAPWALLOPEN CREEK,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	56.9	635
•WAPWALLOPEN (LITTLE) CREEK,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	35.8	636
WAR BRANCH RUN,	Fayette,	George Creek,	Monongahela,	1.5	
WARD RUN,	Washington,	Harmon Creek,	Main Ohio,	2.9	
WARDEN RUN (or MUDDY RUN),	Venango,	Sugar Creek,	Upper Allegheny,	10.0	
WARNER BROOK,	McKean,	Marvin Creek,	Upper Allegheny,	7.0	
WARNER RUN,	Forest,	East Branch Spring Creek,	Middle Allegheny,	1.1	
WARRIOR CREEK,	Luzerne,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	4.2	
WARRIOR RUN,	Northumberland,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	18.8	
•WARRIORS RUN (or MARK RUN),	Huntingdon,	Spruce Creek,	Upper Juniata,	33.3	637
WARTS RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	0.6	
WASHINGTON RUN,	Fayette,	Youghiogheny River,	Monongahela,	7.6	
WASHWATER RUN,	Fayette,	Redstone Creek,	Monongahela,	1.6	
WASTE HOUSE RUN,	Schuylkill,	Mahanoy Creek,	Middle Main Susquehanna,	3.6	
WATER STREET RUN,	Huntingdon,	Frankstown Branch,	Upper Juniata,	6.8	
WATSON BRANCH,	Forest,	Spring Creek,	Middle Allegheny,	13.0	

WATSON RUN,	Armstrong,	Allegheny River,	Middle Allegheny,	0.9	
WATSON RUN,	Crawford,	Conneaut Lake Creek,	Upper Allegheny,	15.9	
WATSON RUN,	Lancaster,	Pequea Creek,	Lower Main Susquehanna,	2.8	
WATSON RUN,	Mercer,	Shenango River,	Main Ohio,	1.1	
WATSONS CREEK,	Bucks,	Mill Creek,	Middle Delaware,	4.4	
WATTLES RUN,	Tioga,	Long Run,	Middle West Branch Susquehanna,	4.3	
WAYMART BRANCH,	Wayne,	Lackawaxen River,	Upper Delaware,	20.7	
WAYS RUN,	Chester,	Hodgson Run,	Lower Main Susquehanna,	2.4	
WEAVER RUN,	Somerset,	Paint Creek,	Lower Allegheny,	7.3	
WEBER RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	1.3	
WEELER RUN (or McGINNIS RUN),	Schuylkill,	West Branch Schuylkill River,	Lower Delaware,	1.2	
WEIKERT RUN,	Union,	Penns Creek,	Middle Main Susquehanna,	5.2	
WELCH HOLLOW,	Washington,	Buffalo Creek,	Main Ohio,	0.8	
WELLS CREEK,	Monroe,	Big Bushkill Creek,	Upper Delaware,	15.5	
WELLS CREEK (or FERGUSON BRANCH),	Somerset,	Stony Creek,	Lower Allegheny,	17.4	
WELLS RUN,	Washington,	Buffalo Creek,	Main Ohio,	3.0	
WELSH RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	2.4	
WELSH RUN,	Franklin,	West Branch Conococheague Creek,	Potomac,	4.6	
WELSH RUN,	Jefferson,	Redbank Creek,	Middle Allegheny,	3.8	
WENDELL RUN,	Lycoming,	Larry Creek,	Lower West Branch Susquehanna,	3.1	
WENSEL RUN,	Center,	Marsh Creek,	Middle West Branch Susquehanna,	6.2	
WEST BRANCH OR FORK (See name of main stream).					
*WEST CREEK,	Cameron,	Driftwood Branch,	Upper West Branch Susquehanna,	58.3	637
WEST CREEK,	Columbia,	Fishing Creek,	Lower North Branch Susquehanna,	16.3	
WEST CREEK, NORTH FORK,	Elk,	West Creek,	Upper West Branch Susquehanna,	7.7	
WEST CREEK, SOUTH FORK,	Elk,	West Creek,	Upper West Branch Susquehanna,	6.0	
WEST RUN,	Jefferson,	Little Toby Creek,	Middle Allegheny,	1.3	
WEST RUN,	McKean,	East Branch Tionesta Creek,	Upper Allegheny,	7.2	
WEST (See also significant name).					
WEST BRANCH RUN,	Columbia,	Little Fishing Creek,	Lower North Branch Susquehanna,	8.7	
WESTLAND RUN,	Washington,	Chartiers Run,	Main Ohio,	5.6	
WEST VIRGINIA FORK,	Greene,	Dunkard Creek,	Monongahela,	26.7	
WEST VIRGINIA FORK	State of West Virginia.	Fish Creek,	Main Ohio,	1.9 in Pa.	
WEST-WEST BRANCH (See name of main stream).					
WETMORE RUN,	Potter,	West Branch Pine Creek,	Middle West Branch Susquehanna,	4.6	
WEXFORD RUN,	Allegheny,	Pine Creek,	Lower Allegheny,	2.2	
WHANN RUN,	Venango,	Allegheny River,	Upper Allegheny,	2.9	
WHARTON RUN,	Greene,	Dunkard Fork,	Main Ohio,	1.7	
WHEELING CREEK,	State of West Virginia.	Ohio River,	Main Ohio,	160.3 in Pa.	
*WHEELING CREEK, DUNKARD FORK,	Greene,	Wheeling Creek,	Main Ohio,	72.4 in Pa.	339
*WHEELING CREEK, ENSLOW FORK,	Greene and Washington.	Wheeling Creek,	Main Ohio,	69.3 in Pa.	348
WHEELING (LITTLE) CREEK,	Washington,	Middle Wheeling Creek,	Main Ohio,	0.6 in Pa.	
WHEELING (MIDDLE) CREEK,	Washington,	Wheeling Creek,	Main Ohio,	14.3 in Pa.	
WHETSTONE RUN,	Delaware,	Darby Creek,	Lower Delaware,	1.1	
WHETSTONE RUN,	Elk,	Little Toby Creek,	Middle Allegheny,	3.9	
WHISKY CREEK,	Cumberland,	Conodoguinet Creek,	Lower Main Susquehanna,	4.1	
WHISKY RUN,	Armstrong,	Sugar Creek,	Middle Allegheny,	0.7	
WHISKY RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	6.4	
WHISKY RUN,	Indiana,	Blacklegs Creek,	Lower Allegheny,	5.1	
WHISKY RUN,	Warren,	Allegheny River,	Upper Allegheny,	1.0	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
WHISKY MILL CREEK,	Schuylkill,	Little Catawissa Creek,	Lower North Branch Susquehanna,	1.8	
WHISLER RUN,	Lancaster,	Susquehanna River,	Lower Main Susquehanna,	0.7	
WHITAKER RUN,	Allegheny,	Monongahela River,	Monongahela,	2.3	
WHITAKER RUN,	Indiana,	South Branch Twolick Creek,	Lower Allegheny,	2.7	
WHITE BRANCH,	Tioga,	North Fork Cowanesque River,	Upper North Branch Susquehanna,	9.1	
•WHITE CREEK (or WEST BRANCH MESHOPPEN CREEK),	Wyoming,	Meshoppen Creek,	Upper North Branch Susquehanna,	27.9	442
WHITE RUN,	Adams,	Rock Creek,	Potomac,	13.7	
WHITE RUN,	Clinton,	West Branch Susquehanna River,	Middle West Branch Susquehanna,	0.7	
WHITE RUN,	Perry,	Juniata River,	Lower Juniata,	0.9	
•WHITE CLAY CREEK,	Chester,	Christiana Creek,	Lower Delaware,	94.6 in Pa.	638
WHITE CLAY CREEK, MIDDLE BRANCH,	Chester	West Branch White Clay Creek,	Lower Delaware,	13.8	
•WHITE CLAY CREEK, WEST BRANCH,	Chester,	White Clay Creek,	Lower Delaware,	25.6	639
•WHITE DEER CREEK,	Union,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	46.9	639
WHITE DEER CREEK, SOUTH BRANCH,	Union,	White Deer Creek,	Lower West Branch Susquehanna,	16.0	
•WHITE DEER HOLE CREEK,	Union,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	67.1	640
WHITEHEAD RUN,	Cameron,	Hunts Run,	Upper West Branch Susquehanna,	3.9	
•WHITELEY CREEK,	Greene,	Monongahela River,	Monongahela,	55.2	640
WHITELEY (LITTLE) CREEK,	Greene,	Monongahela River,	Monongahela,	8.7	
WHITE OAK RUN,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	4.0	
WHITE ROCK HOLLOW,	Fayette,	George Creek,	Monongahela,	0.9	
•WHITES CREEK,	Somerset,	Casselman River,	Monongahela,	37.0	641
WHITES RUN,	Clarion,	Mill Creek,	Middle Allegheny	1.8	
WHITES RUN,	Fayette,	Breakneck Run,	Monongahela,	1.2	
WHITES RUN,	Indiana,	Twolick Creek,	Lower Allegheny,	10.7	
WHITESIDE RUN,	Clearfield,	Moshannon Creek,	Upper West Branch Susquehanna,	5.2	
WHITETHORN CREEK,	Union,	Penns Creek,	Middle Main Susquehanna,	4.6	
WHITETHORN CREEK,	Westmoreland,	Loyalhanna Creek,	Lower Allegheny,	10.3	
WHITETHORN RUN,	Greene,	North Fork Dunkard Fork,	Main Ohio,	2.0	
WHITLOCK CREEK,	Wyoming,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	12.0	
WHITNEY CREEK,	Potter,	South Branch Oswayo Creek,	Upper Allegheny,	6.4	
WHITNEY RUN,	Westmoreland,	Ninemile Run,	Lower Allegheny,	1.4	
•WICONISCO CREEK,	Dauphin,	Susquehanna River,	Middle Main Susquehanna,	115.8	641
WICONISCO (LITTLE) CREEK,	Dauphin,	Wiconisco Creek,	Middle Main Susquehanna,	17.1	
WILCOX RUN,	Warren,	Irvine Run,	Upper Allegheny,	2.3	
WILD CREEK,	Carbon,	Pohopoco Creek,	Middle Delaware,	18.7	
WILDCAT CREEK,	Lackawanna,	Lackawanna River,	Lower North Branch Susquehanna,	6.3	
WILDCAT CREEK,	Perry,	Susquehanna River,	Middle Main Susquehanna,	12.9	
WILDCAT HOLLOW,	Potter,	Kettle Creek,	Middle West Branch Susquehanna,	1.9	
WILDCAT RUN,	Cambria,	Laurel Run,	Lower Allegheny,	2.0	
WILDCAT RUN,	Clarion,	Redbank Creek,	Middle Allegheny,	14.2	
WILDCAT RUN,	Forest,	Tionesta Creek,	Upper Allegheny,	0.4	
WILDCAT RUN,	McKean,	Marvin Creek,	Upper Allegheny,	2.1	
WILDCAT RUN,	McKean,	Twomile Run,	Upper Allegheny,	3.8	
WILDCAT RUN,	Perry,	Juniata River,	Lower Juniata,	9.3	
WILDCAT RUN,	Schuylkill,	Little Schuylkill River,	Lower Delaware,	4.4	

WILDCAT RUN,	Warren,	Tionesta Creek,	Upper Allegheny,	7.9	
WILDCAT RUN,	York,	Susquehanna River,	Lower Main Susquehanna,	0.5	
WILDCAT RUN, EAST FORK,	Clarion,	Wildcat Run,	Middle Allegheny,	3.9	
WILEY RUN,	Allegheny,	Monongahela River,	Monongahela,	4.1	
WILLHOLM RUN,	Clearfield,	West Branch Susquehanna River,	Upper West Branch Susquehanna,	1.4	
WILLIAMS RUN,	Center,	Bald Eagle Creek,	Middle West Branch Susquehanna,	5.0	
WILLIAMS RUN,	Jefferson,	Mahoning Creek,	Middle Allegheny,	1.6	
WILLIAMS RUN,	Lancaster,	Buck Run,	Lower Main Susquehanna,	5.0	
WILLIAMS RUN,	Venango,	South Sandy Creek,	Upper Allegheny,	6.0	
WILLIS RUN,	York,	Codorus Creek,	Lower Main Susquehanna,	2.9	
WILLOUGHBY RUN,	Adams,	Marsh Creek,	Potomac,	9.8	
WILLOW CREEK (or CLOVER CREEK),	Berks,	Maiden Creek,	Lower Delaware,	22.3	
WILLOW CREEK,	Lackawanna,	Griffin Creek,	Lower North Branch Susquehanna,	1.6	
WILLOW CREEK,	Warren,	Allegheny River,	Upper Allegheny,	24.4 in Pa.	
WILLOW RUN,	Allegheny,	Pine Creek,	Lower Allegheny,	4.3	
•WILLOW RUN,	Juniata,	Tuscarora Creek,	Lower Juniata,	25.5	642
•WILLS CREEK,	Bedford,	Potomac River,	Potomac,	186.6 in Pa.	643
•WILLS (LITTLE) CREEK,	Bedford,	Wills Creek,	Potomac,	45.2	643
•WILMER RUN (or NORTH WILMER RUN)	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	32.4	644
•WILMER (NORTH) RUN (or WILMER RUN).	Clearfield,	Clearfield Creek,	Upper West Branch Susquehanna,	32.4	644
WILMER (SOUTH) RUN,	Clearfield,	Wilmer Run,	Upper West Branch Susquehanna,	10.7	
WILSON RUN,	Allegheny,	Allegheny River,	Lower Allegheny,	6.1	
WILSON RUN,	Bedford,	Town Creek,	Potomac,	6.1	
WILSON RUN,	Clearfield,	Bennett Branch,	Upper West Branch Susquehanna,	10.8	
WILSON RUN,	Clearfield,	Chest Creek,	Upper West Branch Susquehanna,	9.6	
WILSON RUN,	Elk,	West Branch Clarion River,	Middle Allegheny,	19.9	
WILSON RUN,	Erie,	South Branch French Creek,	Upper Allegheny,	3.0	
WILSON RUN,	Franklin,	Back Creek,	Potomac,	11.4	
WILSON RUN,	Huntingdon,	Little Trough Creek,	Upper Juniata,	1.4	
WILSON RUN,	Somerset,	Coxe Creek,	Monongahela,	6.3	
WILSON RUN,	Westmoreland,	Sewickley Creek,	Monongahela,	7.5	
WILSONS RUN,	Northumberland,	North Branch Susquehanna River,	Lower North Branch Susquehanna,	5.6	
WIND RUN,	McKean,	East Branch Tionesta Creek,	Upper Allegheny,	5.0	
WINDFALL BROOK,	Tioga,	Cowanesque River,	Upper North Branch Susquehanna,	2.7	
WINDFALL RUN,	Elk,	Bear Creek,	Middle Allegheny,	2.6	
WINDFALL RUN,	Elk,	Big Mill Creek,	Middle Allegheny,	1.1	
WINDFALL RUN,	Jefferson,	Big Run	Middle Allegheny,	1.4	
WINDFALL RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	3.9	
WINDFALL RUN,	McKean,	Twomile Run,	Upper Allegheny,	3.4	
WINDFALL RUN,	Potter,	Cross Fork,	Middle West Branch Susquehanna,	6.6	
WINDFALL RUN,	Wyoming,	Bowman Creek,	Upper North Branch Susquehanna,	2.1	
WINGFIELD RUN,	Beaver,	Raccoon Creek,	Main Ohio,	2.9	
WINGOHOCKING CREEK,	Philadelphia,	Frankford Creek,	Lower Delaware,	7.5	
WINTERGREEN RUN,	McKean,	Kinzua Creek,	Upper Allegheny,	5.2	
WISECARVER RUN,	Greene,	Browns Creek,	Monongahela,	3.9	
•WISSAHICKON CREEK,	Philadelphia,	Schuylkill River,	Lower Delaware,	63.8	645
WISSINOMING CREEK,	Philadelphia,	Delaware River,	Lower Delaware,	2.2	
WITMER RUN,	Center,	Pine Creek,	Middle Main Susquehanna,	5.1	
WOLCOTT CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	11.2	
WOLF CREEK,	Berks,	Northkill Creek,	Lower Delaware,	1.4	
•WOLF CREEK,	Butler,	Slippery Rock Creek,	Main Ohio,	100.3	646
WOLF CREEK,	Schuylkill,	Mill Creek,	Lower Delaware,	4.4	
WOLF CREEK,	Schuylkill,	West Branch Schuylkill River	Lower Delaware,	2.2	

Name.	County.	Tributary to—	Basin or Sub-basin.	Drainage Area Square Miles.	Page.
WOLF CREEK,	Susquehanna,	Wyalusing Creek,	Upper North Branch Susquehanna,	2.0	
WOLF CREEK, EAST BRANCH,	Mercer,	Wolf Creek,	Main Ohio,	14.2	
WOLF (LITTLE) CREEK,	Schuylkill,	Mill Creek,	Lower Delaware,	2.1	
WOLF HARBOR,	Washington,	Monongahela River,	Monongahela,	0.5	
WOLF (LITTLE) LICK,	Elk,	Wolf Lick Run,	Upper West Branch Susquehanna,	3.3	
WOLF RUN,	Beaver,	Ohio River,	Main Ohio,	5.0	
WOLF RUN,	Bucks,	Deer Run,	Middle Delaware,	1.4	
WOLF RUN,	Center,	Beech Creek,	Middle West Branch Susquehanna,	10.9	
WOLF RUN,	Clearfield,	Upper North Branch Clearfield Creek,	Upper West Branch Susquehanna,	1.5	
WOLF RUN,	Crawford,	French Creek,	Upper Allegheny,	6.8	
WOLF RUN,	Dauphin,	West Branch Rattling Creek,	Middle Main Susquehanna,	0.8	
WOLF RUN,	Elk,	West Branch Clarion River,	Middle Allegheny,	10.1	
WOLF RUN,	Forest,	Spring Creek,	Middle Allegheny,	6.8	
WOLF RUN,	Jefferson,	Falls Creek,	Middle Allegheny,	9.0	
WOLF RUN,	Luzerne,	Bowman Creek,	Upper North Branch Susquehanna,	1.2	
WOLF RUN,	Lycoming,	Larry Creek,	Lower West Branch Susquehanna,	3.1	
WOLF RUN,	Lycoming,	Pine Creek,	Middle West Branch Susquehanna,	2.9	
WOLF RUN,	Lycoming,	Plunkett Creek,	Lower West Branch Susquehanna,	2.1	
WOLF RUN,	Lycoming,	Texas Run,	Middle West Branch Susquehanna,	3.8	
WOLF RUN,	Lycoming,	West Branch Susquehanna River,	Lower West Branch Susquehanna,	10.0	
WOLF RUN,	Snyder,	Penns Creek,	Middle Main Susquehanna,	6.4	
WOLF RUN,	Sullivan,	Painter Den Creek,	Lower West Branch Susquehanna,	3.6	
WOLF RUN,	Venango,	Sugar Creek,	Upper Allegheny,	5.7	
WOLF RUN,	Wyoming,	North Branch Mehoopany Creek,	Upper North Branch Susquehanna,	7.5	
WOLF RUN,	York,	North Branch Bermudian Creek,	Lower Main Susquehanna,	3.2	
WOLF CAMP RUN,	Bedford,	Little Wills Creek,	Potomac,	8.9	
WOLFE CREEK,	Bradford,	South Creek,	Upper North Branch Susquehanna,	5.7	
WOLFE RUN,	Butler,	Breakneck Creek,	Main Ohio,	5.6	
WOLFFS RUN,	Luzerne,	Stony Creek,	Lower North Branch Susquehanna,	0.6	
WOLFHOUSE RUN,	Columbia,	Little Fishing Creek,	Lower North Branch Susquehanna,	1.6	
WOLF LICK RUN,	Elk,	Spring Run,	Upper West Branch Susquehanna,	11.9	
•WOODCOCK CREEK,	Crawford,	French Creek,	Upper Allegheny,	55.3	646
•WOODEN BRIDGE CREEK,	Fulton,	Sideling Hill Creek,	Lower Juniata,	25.4	647
WOOD ROCK RUN,	Cameron,	First Fork Sinnemahoning Creek,	Upper West Branch Susquehanna,	0.8	
WOODS RUN,	Clarion,	Mill Creek,	Middle Allegheny,	1.1	
WOODS RUN,	Clearfield,	Wilson Run,	Upper West Branch Susquehanna,	0.9	
WOODS RUN,	Greene,	Whiteley Creek,	Monongahela,	1.4	
WOOMERS RUN (or BIG FILL RUN),	Blair,	Bald Eagle Creek,	Upper Juniata,	15.9	
WRIGHT CREEK,	Luzerne,	Lehigh River,	Middle Delaware,	8.5	
WRIGHT RUN,	Greene,	North Fork Dunkard Fork,	Main Ohio,	1.4*	
WRIGHTS RUN,	Washington,	Enlow Fork,	Main Ohio,	1.5 in Pa.	
•WYALUSING CREEK,	Bradford,	North Branch Susquehanna River,	Upper North Branch Susquehanna,	216.2	647
•WYALUSING CREEK, EAST BRANCH,	Susquehanna,	Wyalusing Creek,	Upper North Branch Susquehanna,	69.8	648
WYALUSING CREEK, EAST BRANCH, SOUTH BRANCH,	Susquehanna,	East Branch Wyalusing Creek,	Upper North Branch Susquehanna,	5.1	
•WYALUSING CREEK, MIDDLE BRANCH	Susquehanna,	Wyalusing Creek,	Upper North Branch Susquehanna,	35.7	649

•WYALUSING CREEK, NORTH BRANCH,	Susquehanna, ...	Wyalusing Creek, ...	Upper North Branch Susquehanna,	43.9		649
WYEROUGH RUN, ...	Cambria, ...	Beaverdam Run, ...	Upper West Branch Susquehanna,..	4.6		
WYKLE RUN, ...	Venango, ...	Cherry Tree Run, ...	Upper Allegheny, ...	2.0		
WYKOFF RUN, ...	Cameron, ...	Sinnemahoning Creek, ...	Upper West Branch Susquehanna...	24.5		
WYNCOOP RUN, ...	Elk, ...	Clarion River, ...	Middle Allegheny, ...	6.4		
WYOMISSING CREEK, ...	Berks, ...	Schuylkill River, ...	Lower Delaware, ...	17.0		
•WYSOX CREEK, ...	Bradford, ...	North Branch Susquehanna River, ..	Upper North Branch Susquehanna,	100.7		650
WYSOX (LITTLE) CREEK (or MILL CREEK).	Bradford, ...	North Branch Susquehanna River, ..	Upper North Branch Susquehanna,	10.6		
YANKEE (LITTLE) CREEK, ...	Mercer, ...	Shenango River, ...	Main Ohio, ...	43.0		
YELLOW BRANCH, ...	Huntingdon, ...	Great Trough Creek, ...	Upper Juniata, ...	2.8		
•YELLOW CREEK, ...	Bedford, ...	Raystown Branch, ...	Upper Juniata, ...	95.7		651
•YELLOW CREEK, ...	Butler, ...	Little Connoquenessing Creek, ...	Main Ohio, ...	16.6		651
•YELLOW CREEK, ...	Indiana, ...	Twolick Creek, ...	Lower Allegheny, ...	67.1		652
YELLOW CREEK, ...	Mercer, ...	Cool Spring Creek, ...	Main Ohio, ...	4.2		
YELLOW (LITTLE) CREEK, ...	Butler, ...	Yellow Creek, ...	Main Ohio, ...	5.1		
YELLOW (LITTLE) CREEK, ...	Indiana, ...	Yellow Creek, ...	Lower Allegheny, ...	17.6		
YELLOW RUN, ...	Cambria, ...	South Fork Little Conemaugh River,	Lower Allegheny, ...	10.4		
YELLOW RUN, ...	Sullivan, ...	Little Loyalsock Creek, ...	Lower West Branch Susquehanna,..	1.0		
YELLOW (LITTLE) RUN, ...	Cambria, ...	South Fork Little Conemaugh River,	Lower Allegheny, ...	0.6		
YELLOW SPRING, ...	Blair, ...	Frankstown Branch, ...	Upper Juniata, ...	3.7		
•YELLOW BREECHES CREEK, ...	Cumberland and York,	Susquehanna River, ...	Lower Main Susquehanna, ...	227.5		653
YELLOW SPRING RUN, ...	Schuylkill, ...	Schuylkill River, ...	Lower Delaware, ...	1.1		
YOCHUM RUN, ...	Potter, ...	Cross Fork, ...	Middle West Branch Susquehanna,	2.8		
YORMAN RUN, ...	Jefferson, ...	North Fork Redbank Creek, ...	Middle Allegheny, ...	1.3		
YORK RUN, ...	Warren, ...	Brokenstraw Creek, ...	Upper Allegheny, ...	3.1		
YORKS RUN, ...	Fayette, ...	George Creek, ...	Monongahela, ...	17.1		
YOST RUN, ...	Center, ...	West Branch Susquehanna River, ...	Upper West Branch Susquehanna...	7.9		
•YOUGHIOGHENY RIVER, ...	Allegheny, ...	Monongahela River, ...	Monongahela, ...	1,732.0		654
•YOUNG WOMANS CREEK, ...	Clinton, ...	West Branch Susquehanna River, ...	Middle West Branch Susquehanna,	90.2		656
YOUNG WOMANS CREEK, MIDDLE BRANCH.	Clinton, ...	West Branch Young Womans Creek,	Middle West Branch Susquehanna,	18.4		
•YOUNG WOMANS CREEK, WEST BRANCH	Clinton, ...	Young Womans Creek, ...	Middle West Branch Susquehanna,	34.1		656
ZACHARIAS CREEK, ...	Montgomery, ...	Skippack Creek, ...	Lower Delaware, ...	8.1		
ZACHARIAS RUN, ...	Schuylkill, ...	Schuylkill River, ...	Lower Delaware, ...	2.0		
ZAHNISTER RUN (or DALEY RUN), ...	Mercer, ...	Shenango River, ...	Main Ohio, ...	3.1		
ZERBE RUN, ...	Northumberland...	Mahanoy Creek, ...	Middle Main Susquehanna, ...	13.1		
•ZIMMERMAN RUN (or TEXAS RUN), ...	Lycoming, ...	Little Pine Creek, ...	Middle West Branch Susquehanna,	42.6		602

DESCRIPTIONS OF STREAMS

(For text explanatory of the following descriptions see page 20)

ACKLEY RUN

Tributary to Conewango Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Elk Township, northeastern Warren County; elevation 2,000.

Course—Southwesterly to Conewango Creek.

Mouth—At Russell; elevation 1,215.

Length—Seven miles.

Drainage Area—Total, 28.8 square miles; in Pa., 28.5 square miles in northeastern Warren County.

Topography—Broken and hilly; narrow valley flanked with rolling hills; broad flatlands near mouth.

Channel—Sinuous, through shale and sandstone formations; alluvial flood plains in lower course.

Profile—Rate of fall, from source to mouth, 112.1 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Scandia (58), Russell (700).

Industries—Timber; agriculture.

ALLEGHENY RIVER

Tributary to Ohio River. Basin: Ohio.

NATURAL FEATURES

Source—In Sweden Township, central Potter County.

Course—Northwesterly through McKean County into New York, forming a loop 50 miles long before re-entering Pennsylvania in Warren County; thence southwesterly through Forest County to junction of French Creek at Franklin, Venango County; thence southeasterly to junction of Mahoning Creek in Armstrong County, forming Clarion-Armstrong county boundary from northeastern corner of Butler County to junction of Redbank Creek; thence southwesterly to join Monongahela River and form Ohio River, being Allegheny-Westmoreland county boundary from junction of Kiskiminitas River to Parnassus.

Mouth—At Pittsburgh; elevation 703.

Length—Total, 314 miles.

Drainage Area—Total, 11,705 square miles; in Pa., 9,771 square miles, embracing portions of Erie, Warren, McKean, Potter, Crawford, Venango, Forest, Elk, Mercer, Clarion, Jefferson, Clearfield, Butler, Armstrong, Indiana, Allegheny, Westmoreland, Cambria and Somerset counties.

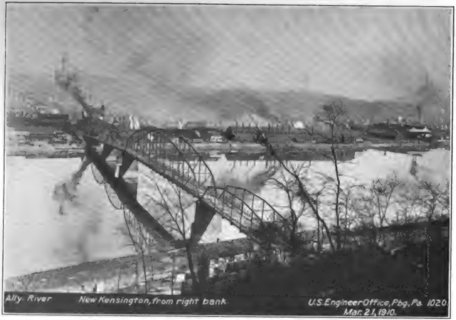
Topography—Entire basin lies within the Allegheny Plateau region, which is for the most part a highland, carved deeply with many narrow, steep-sided valleys. The areas to the west of the main stream are of a less rugged character, being mostly rolling agricultural country beyond the steep slope of main valley. The terminal moraine traverses basin from northeast to southwest, involving a small stretch of Allegheny River at Olean, N. Y., the remaining part of moraine lying a few miles to north of stream, crossing Conewango Creek 8 miles north of Warren, and French Creek 6 miles above Franklin. The glaciated region covers 25 per cent of the basin and abounds in lakes and swamps. The largest is Lake Chautauqua, situated in southwestern corner of New York, with an elevation of 1,308, a length of 18 miles and an average width of 1.2 miles. The next largest is Conneaut Lake, located near the western edge of basin in Crawford County, with an elevation of 1,072 and a length of 2.6 miles. About 40 per cent of the basin is wooded, principally in northeastern portion, and contains stands of virgin timber amounting to 2 per cent of total drainage area.

Geology—Principally shale and sandstone formations, with some limestone, containing rich oil, gas, and bituminous coal deposits of national importance.

Channel—Sinuous, through narrow valleys with steep sides and little bottom land. Improved for navigation 24 miles from mouth, above which point it is a series of riffles and natural pools, formed by deposits of sand and gravel across stream bed. Average width between flow lines is as follows: from Warren to Oil City, 58 miles, 780 feet; thence to Kiskiminitas River, 104 miles, 630 feet; thence to Lock No. 2, 23 miles, 1,270 feet; thence to mouth, 7 miles, 940 feet.

Profile—Rate of fall per mile: from point 1 mile below source, elevation 2,210, to Colesburg, 5 miles, 76 feet; thence to Port Alle-

Plate III


Ally. River
New Kensington, from right bank.
U.S. Engineer Office, Pbg, Pa. 1020
Mar. 21, 1910.

Allegheny River at New Kensington

gany, 23 miles, 16 feet; thence to Salamanca, 52 miles, 1.8 feet; thence to mouth of Kiskiminitas River at Freeport, 203 miles, 3.1 feet; thence to Pittsburgh, 30 miles, 1.1 feet. The following table gives pool levels and lifts at dams, with distances above mouth:

Location	Distance above Mouth	Lift	Pool Level
	Miles	Feet	Feet
Mouth,	0.0	....	703.0
Lock No. 1, Herr Island Dam,	1.7	7.0	710.0
Lock No. 2,	7.0	11.0	721.0
Lock No. 3, Springdale,	16.7	10.5	731.5

Lakes—Canadotha Lake (169.9 acres), Clear Lake (117.5 acres), Conneaut Lake (928.5 acres), Sugar Lake (90.1 acres), Conneautte Lake (247.0 acres), Lake Leboeuf (70.3 acres), Lake Pleasant (59.7 acres), Sandy Lake (149.7 acres).

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Red House, N. Y., September 1903. At Franklin, April 1905. At Kittanning, August 1904. At Freeport, April 1873.

Precipitation—Mean annual, 35 to 50 inches.

NATURAL RESOURCES

Agriculture—This industry is extensively developed, principally in the lower basins of tributaries from east, and in most of the area to west, of main stream.

Minerals—Bituminous coal is found in abundance in the lower basin on the east; oil and gas are deposited in many places, principally in the vicinity of Bradford, Warren, Oil City, Franklin, Clarion and Kittanning.

Timber—Valuable timber areas are confined to northeastern part of basin, where there are large areas of second growth and some stands of virgin timber.

Water Power—There are no large developments at present. Extensive developments of Clarion River, Crooked Creek and Cowanshannock Creek have been proposed. Developments of Redbank Creek, Mahoning Creek and Kiskiminitas River are also under consideration.

ARTIFICIAL FEATURES

Towns—Coudersport (3,100), Bradford (14,544), Warren (11,080), Oil City (15,657), Franklin (9,767), Meadville (12,780), Dubois (12,623), Kittanning (4,311), Ford City (4,850), Johnstown (55,482), Tarentum (7,414), New Kensington (7,707), Oakmont (3,436), Verona (2,849), Aspinwall (2,592), Sharpsburg (8,153), Etna (5,830), Millvale (7,861), Pittsburgh (533,905).

Industries—Extensive agriculture; oil and gas fields; coal mines; quarries; timber; tanneries; oil refineries; iron and steel plants; manufacturing.

Pollution—Waste from tanneries, oil and gas wells, and coal mines.

Railroads—Pennsylvania traverses basin and follows stream from state boundary to mouth; Buffalo, Rochester & Pittsburgh, Baltimore & Ohio, Lake Shore & Michigan Southern, Pittsburgh, Shawmut & Northern, Erie and several others traverse basin.

Utilization—Main stream for industrial, domestic and railroad supply by many towns along its course, including Emlenton, Kittanning, Ford City, Freeport, Parker, New Kensington, Tarentum, Natrona, Etna, Millvale, Verona and Pittsburgh. Navigation has been improved on this river from mouth to Natrona, a distance of 24 miles, by a series of 3 locks and dams, which give a channel depth of 8 feet. There are no water power developments on main stream.

ALLEGHENY PORTAGE CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Keating Township, western Potter County.

Course—Northwesterly into McKean County to Allegheny River.

Mouth—Opposite Port Allegany.

Length—Twelve and one-half miles.

Drainage Area—Contains 47.4 square miles in western Potter and eastern McKean counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

Analomink Creek at Henryville

ARTIFICIAL FEATURES

Towns—Wrights (117), Portage Creek (114).

Industries—Timber; agriculture.

Railroads—Pennsylvania follows stream from headwaters to mouth.

ANALOMINK CREEK (or WEST BRANCH BRODHEADS CREEK)

Tributary to Brodheads Creek. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—Near Mt. Pocono, in Coolbaugh Township, northwestern Monroe County.

Course—Southeasterly to Brodheads Creek.

Mouth—One mile north of Analomink.

Length—Nine and one-half miles.

Drainage Area—Contains 43.0 square miles in northern central Monroe County.

Topography—Rolling, mountainous country within the glaciated area; well wooded.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Henryville, September 1908.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Paradise Valley (100), Mt. Pocono (750), Swiftwater (150), Henryville (103).

Industries—Agriculture; timber; summer resorts.

Railroads—Delaware, Lackawanna & Western traverses basin and follows stream in lower course.

Utilization—Swiftwater Creek for water supply at Swiftwater.

ANDERSON CREEK

Tributary to West Branch Susquehanna River.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Huston Township, northwestern Clearfield County.

Course—Southwesterly and southeasterly to West Branch Susquehanna River.

Mouth—At Curwensville; elevation 1,128.

Length—Twenty-one miles.

Drainage Area—Contains 79.8 square miles in northwestern Clearfield County.

Topography—Allegheny Plateau region, being rocky and hilly, with narrow valleys and steep hills.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Profile—Rate of fall, from elevation 1,340 to mouth, 4.5 miles, 47.1 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Homecamp (41), Grampian (666), Curwensville (2,549).

Industries—Coal mines.

Railroads—Buffalo, Rochester & Pittsburgh and New York Central & Hudson River traverse basin and follow stream in lower course; Pennsylvania traverses lower basin.

Utilization—Water supply at Dubois; industrial supply at Curwensville.

ANTIETAM (LITTLE) CREEK, EAST BRANCH

Tributary to Little Antietam Creek. Basin: Potomac.

NATURAL FEATURES

Source—On western slope of Green Ridge, South Mountain, Hamiltonban Township, western Adams County; elevation 1,560.

Course—Southwesterly into Franklin County to Little Antietam Creek.

Mouth—Near state boundary, 2 miles southwest of Waynesboro; elevation 550.

Length—Fifteen miles.

Drainage Area—Total, 51.8 square miles; in Pa., 44.4 square miles in southeastern Franklin and western Adams counties.

Topography—Mountainous in upper basin; valley broadens in lower basin, which lies in the broad, fertile Cumberland Valley.

Channel—Sinuous, through shale and limestone formations; gently sloping banks bordered with wide flats in lower basin.

Profile—Rate of fall per mile: from source to elevation 800, 6 miles, 126.7 feet; thence to mouth, 9 miles, 27.8 feet.

Springs—On account of the limestone formation there are many springs in this basin.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Waynesboro (7,199), Pen Mar (200), Rouzerville (312).

Industries—Agriculture; tool, plaster, cement stone, clock, overall, grain separator and ice machine factories.

Railroads—Western Maryland and Cumberland Valley traverse basin.

Utilization—Rattlesnake Creek and Baileys Run for water supply by Waynesboro Water Co. Water power for a few small mills.

ANTIETAM (LITTLE) CREEK, WEST BRANCH

Tributary to Little Antietam Creek. Basin: Potomac.

NATURAL FEATURES

Source—In Guilford Township, eastern Franklin County; elevation 1,560.

Course—Southwesterly, by a circuitous route, to Little Antietam Creek.

Mouth—Near state boundary, 2 miles southwest of Waynesboro; elevation 550.

Length—Fourteen miles.

Drainage Area—Contains 42.5 square miles in southeastern Franklin County.

Topography—Mountainous in headwaters; basin lies in the broad, fertile Cumberland Valley.

Channel—Sinuous, through shale and sandstone formations; gently sloping banks bordered with wide flats.

Profile—Rate of fall per mile: from elevations 1,000 to 800, 2 miles, 100 feet; thence to mouth, 10 miles, 25 feet.

Springs—On account of the limestone formation there are many springs in this basin.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Mont Alto, May 1909; discontinued December 1912.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Mont Alto (658), Quincy (410), Tomstown (130), Fiveforks (113), Waynesboro (7,199).

Industries—Agriculture; tool, plaster, cement stone, clock, overall, grain separator and ice machine factories.

Railroads—Cumberland Valley traverses basin and follows stream in upper course; Western Maryland traverses basin.

Utilization—Private water supply at Mont Alto. Water power for a few small mills.

AQUASHICOLA CREEK

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Blue Mountain, Hamilton Township, Monroe County.

Course—Southwesterly into Carbon County to Lehigh River.

Mouth—At Lehigh Gap.

Length—Twenty-two and one-half miles.

Drainage Area—Contains 81.2 square miles in southern Monroe and southeastern Carbon counties.

Topography—Long, narrow valley flanked with steep mountain ridges.

Channel—Sinuous, through sandstone and limestone formations.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Little Gap (374), Aquashicola (350), Palmerton (1,100).

Industries—Agriculture; timber; zinc works.

Railroads—Chestnut Ridge traverses basin and follows stream in lower course.

Utilization—By Blue Mountain Consolidated Water Co. at Nazareth, Pen Argyl and Windgap. Water power by a few small mills. Princess Creek for water supply at Saylorsburg.

ARMSTRONG CREEK

Tributary to Susquehanna River.
Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—In Jackson Township, northern central Dauphin County; elevation 1,570.

Course—Southwesterly to Susquehanna River.

Mouth—Near Halifax; elevation 357.

Length—Fourteen and one-half miles.

Drainage Area—Contains 32.9 square miles in northwestern Dauphin County.

Topography—Rough and hilly, basin lying between mountain ridges; narrow valley flanked with steep hills.

Channel—Tortuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 900 to 600, 2.5 miles, 120 feet; thence to mouth, 10.5 miles, 23.1 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Fisherville (210), Enders (120).

Industries—Agriculture.

Utilization—Springs at headwaters of main stream for water supply at Halifax and Elizabethville.

AUGHWICK CREEK

Tributary to Juniata River. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—Formed by junction of Sideling Hill Creek and Little Aughwick Creek, near Maddensville, Springfield Township, southeastern Huntingdon County.

Course—Northeasterly to Juniata River.

Mouth—Three miles southeast of Mt. Union.

Length—Twenty-four and one-half miles.

Drainage Area—Contains 327.0 square miles, embracing portions of Fulton, Huntingdon and Juniata counties.

Topography—Mountainous; wide main basin bordered by parallel ridges, which are gapped in places by tributary streams.

Geology—Shale, sandstone and limestone formations, containing bituminous coal deposits at headwaters of Sideling Hill Creek.

Channel—Tortuous, through rough rocky bed, bordered by steep banks.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Pogue, May 1915.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Maddensville (93), Burnt Cabins (275), Shade Gap (143), Saltillo (410), Orbisonia (618), Rock Hill (504).

Industries—Agriculture; coal mines; timber.

Railroads—East Broad Top & Coal Co. traverses basin and follows stream from Pogue to Aughwick.

Utilization—Water power for small grist mill at Maddensville.

AUGHWICK (LITTLE) CREEK

Tributary to Aughwick Creek. **Sub-basin: Lower Juniata.**

NATURAL FEATURES

Source—In Dublin Township, southeastern Huntingdon County.

Course—Southwesterly into Fulton County; thence northerly into Huntingdon County to Aughwick Creek.

Mouth—Near Maddensville.

Length—Sixteen and one-half miles.

Drainage Area—Contains 54.5 square miles in northeastern Fulton and southeastern Huntingdon counties.

Topography—Mountainous; narrow valley flanked with steep, high hills.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Mentzer (25), Decorum (24), Burnt Cabins (275), Fort Littleton (117), Clear Ridge (125), Maddensville (93).

Industries—Agriculture.

Utilization—Water power for a few small mills.

AULTMANS RUN

Tributary to Conemaugh River. **Sub-basin: Lower Allegheny.**

NATURAL FEATURES

Source—In Armstrong Township, western Indiana County; elevation 1,330.

Course—Southwesterly to Conemaugh River.

Mouth—Near Livermore; elevation 878.

Length—Twelve and one-half miles.

Drainage Area—Contains 31.2 square miles in southwestern Indiana County.

Topography—Broken and hilly; main valley has alluvial flats which become a mile wide at mouth; hills are steep and rise 300 to 400 feet above water.

Channel—Sinuous, through shale, sandstone and limestone formations, containing some coal.

Profile—Rate of fall, from elevation 1,100 to mouth, 10.5 miles, 21.1 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Jacksonville (87).

Industries—Agriculture; coal mines.

Railroads—Buffalo, Rochester & Pittsburgh traverses upper basin.

BABB CREEK

Tributary to Pine Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Bloss Township, southeastern Tioga County.

Course—Southwesterly to Pine Creek.

Mouth—At Lloyd.

Length—Seventeen miles.

Drainage Area—Contains 149.5 square miles in southern central Tioga and northwestern Lycoming counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; upper basin in glaciated region.

Channel—Sinuous, through shale and sandstone formations, containing bituminous coal.

Precipitation—Mean annual, 30 to 40 inches.

ARTIFICIAL FEATURES

Towns—Landrus (457), Antrim (1,856), Morris (530), Hoytville (560), Lloyd (207).

Industries—Timber; coal mines; agriculture.

Railroads—Erie follows stream from source to Hoytville; New York Central & Hudson River traverses basin.

Utilization—Industrial supply at Hoytville. Mickle Run and Rock Run, in conjunction with Marsh Creek, for water supply at Wellsboro.

BACK CREEK

Tributary to Conococheague Creek. Basin: Potomac.

NATURAL FEATURES

Source—In Letterkenny Township, northern central Franklin County; elevation 700.

Course—Southwesterly to Conococheague Creek.

Mouth—At Williamson; elevation 484.

Length—Sixteen miles.

Drainage Area—Contains 84.5 square miles in western central Franklin County.

Topography—Basin lies in broad, fertile Cumberland Valley.

Channel—Sinuous, through shale and limestone formations.

Profile—Rate of fall per mile: from source to elevation 600, 1.5 miles, 66.7 feet; thence to mouth, 14.5 miles, 8 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Edenville (63), St. Thomas (410), Williamson (210).

Industries—Agriculture.

Railroads—Cumberland Valley traverses lower basin.

BALD EAGLE CREEK

Tributary to Little Juniata River. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Taylor Township, southwestern Center County.

Course—Southwesterly into Blair County to Little Juniata River.

Mouth—At Tyrone.

Length—Seven and one-half miles.

Drainage Area—Contains 48.2 square miles in southwestern Center and northeastern Blair counties.

Topography—Mountainous; narrow valley flanked by two parallel ranges; well wooded; stream lies close to base of ridge to southeast, causing most of drainage to flow from northwest.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Tyrone (7,176).

Industries—Sawmills; iron, steel, lead, zinc, flour and paper mills.

Railroads—Pennsylvania traverses basin and follows stream from headwaters to mouth.

Utilization—Industrial supply at Tyrone; Pennsylvania Railroad water supply at East Tyrone. Water power for a few small grist mills.

BALD EAGLE CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Taylor Township, southwestern Center County.

Course—Northeasterly into Clinton County to West Branch Susquehanna River.

Mouth—Near Lock Haven.

Length—Fifty-one miles.

Drainage Area—Contains 781.8 square miles in central Center and southern Clinton counties.

Topography—Basin lies in the Allegheny Mountain region; broad, rich, agricultural valley between Bald Eagle Ridge on southeast and Allegheny Front on northwest. These slopes are well wooded and carved with many mountain streams.

Geology—Sandstone and limestone formations; many limestone springs give this stream a strong dry season flow. Spring Creek, entering from south through Bellefonte, is especially noted for its sustained flow during droughts.

Channel—Sinuous, through broad bottom lands; rock and gravel bed with steep banks in places.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Milesburg, February 1911. At Beech Creek Station, June 1910.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Unionville (343), Milesburg (531), Bellefonte (4,145), Boalsburg (417), Pine Grove Mills (362), State College (1,425), Howard (667), Snow Shoe (643), Beech Creek (584), Mill Hall (1,043), Loganton (375), Flemington (1,022), Lock Haven (7,772).

Industries—Limestone quarries; brick works; iron ore mines; foundries; timber; extensive agriculture; silk mills; paper mill.

Railroads—Pennsylvania traverses basin and follows stream from source to mouth; New York Central & Hudson River traverses basin and follows stream in lower course; Bellefonte Central and Central Railroad of Pennsylvania traverse basin.

Utilization—Pennsylvania Railroad water supply at Snow Shoe Intersection. Tributaries for water supply at Boalsburg, State College, Bellefonte, Howard and Lock Haven. Water power by 4 hydroelectric plants, 3 being on tributaries. Water power by a few small grist mills.

BEAR CREEK

Tributary to Allegheny River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Oakland Township, eastern Butler County; elevation 1,340.

Course—Northeasterly into Armstrong County to Allegheny River.

Mouth—Near Parkers Landing; elevation 841.

Length—Fourteen and one-half miles.

Drainage Area—Contains 63.4 square miles in northeastern Butler and northwestern Armstrong counties.

Topography—Rolling hills in upper basin; becomes rough and hilly, with narrow main valley, in lower basin.

Channel—Sinuous, through shale and sandstone formations, containing coal, oil and gas.

Profile—Rate of fall, from source to mouth, 34.4 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Karns City (283), Petrolia (360), Fairview (167), Bruin (539).

Industries—Oil; gas; coal; agriculture.

Railroads—Baltimore & Ohio traverses basin and follows stream in lower course; Western Allegheny traverses upper basin.

BEAR CREEK

Tributary to Clarion River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Highland Township, northwestern Elk County.

Course—Southerly to Clarion River.

Mouth—Opposite Portland Mills.

Length—Thirteen and one-half miles.

Drainage Area—Contains 41.6 square miles in western Elk County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; densely wooded.

Channel—Sinuous, through shale and sandstone formations, containing coal deposits.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

BEAR CREEK

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Spring Brook Township, southern Lackawanna County.

Course—Southerly, by a circuitous route, through Luzerne County to Lehigh River.

Mouth—Six miles northeast of White Haven.

Length—Thirteen miles.

Drainage Area—Contains 55.8 square miles, principally in Luzerne County.

Topography—Broken, mountainous country containing lakes and swamps of glacial origin.

Channel—Sinuous, through sandstone formation and glacial drift.

Lakes—Bear Creek Ice Co's. Dam No. 1 (63.4 acres), Bear Creek Ice Co's. Dam No. 2 (20.0 acres), Bear Creek Ice Co's. Dam No. 3 (15.4 acres), Bear Creek Ice Co's. Dam No. 4 (33.4 acres), Bear Creek Ice Co's. Dam No. 5 (57.3 acres).

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Bear Creek (43).

Industries—Agriculture; ice harvesting.

Railroads—Lehigh Valley traverses basin.

Utilization—Auxiliary water supply at Bear Creek.

BEAVER CREEK

Tributary to Swatara Creek. Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Blue Mountain, West Hanover Township, central Dauphin County; elevation 800.

Course—Southerly to Swatara Creek.

Mouth—Opposite Hummelstown; elevation 306.

Length—Ten and one-half miles.

Drainage Area—Contains 26.6 square miles in southern central Dauphin County.

Topography—Lies in Piedmont Plateau; headwaters drain southern slope of Blue Mountain; main valley bounded by rolling hills.

Channel—Sinuous, through shale and slate formations; bounded in places by steep banks and narrow flood plains.

Profile—Rate of fall, from elevation 500 to mouth, 9.5 miles, 20.4 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Linglestown (568).

Industries—Agriculture.

Railroads—Philadelphia & Reading traverses lower basin.

Utilization—Water supply for Rutherford Station.

BEAVER RIVER

Tributary to Ohio River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—Formed by junction of Mahoning and Shenango rivers, in central Lawrence County, 2.5 miles southwest of New Castle; elevation 763.

Course—Southeasterly into Beaver County to Ohio River.

Mouth—At Rochester; elevation 668.3.

Length—Twenty-two and one-half miles.

Drainage Area—Total, 3,040.0 square miles; in Pa., 1,784.3 square miles, embracing portions of Crawford, Mercer, Butler, Lawrence, Allegheny and Beaver counties.

Topography—Basin above New Castle lies in the glaciated region, containing broad valleys with many swamps and lakes. Main valley to Wampum broad with wide flat bottom; thence to mouth, narrower and gorge-like with river terraces in many places and rolling hills beyond; tributaries through deep ravines in lower courses with rolling hills at headwaters.

Geology—Main basin traversed by terminal moraine from northeast to southwest, crossing main valley just above junction of Connoquenessing Creek. Rich fire clay and sandstone deposits; some coal, iron ore, oil and gas.

Plate V

Beaver River at West Bridgewater

Channel—Upper course 400 to 500 feet wide in clay and gravel to near Wampum, where it cuts through the terminal moraine and continues in middle and lower courses through a deep gorge carved in sandstone. In places cliff banks rise 300 feet above river, while at other places broad river terraces are located between stream and steep hills beyond.

Profile—Rate of fall per mile: from source to Hartman Dam at Beaver Falls, crest elevation 734.8, 17 miles, 1.7 feet; thence from base of dam, elevation 722.8, to mouth, 5.5 miles, 9.9 feet.

Swamps—Many at headwaters of Shenango River, including Pymatuning Swamp.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Newport, October 1914.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Greenville (5,909), Sharon (15,270), Farrell (10,190), New Castle (36,280), Butler (20,728), Beaver Falls (12,191), New Brighton (8,329), West Bridgewater (1,347), Rochester (5,903), Beaver (3,456).

Industries—Flour mills; planing mills; pottery; foundry; white lead; nail and wire works; agriculture.

Railroads—Pennsylvania Lines West of Pittsburgh and Pittsburgh & Lake Erie traverse basin and follow stream from source to mouth; Baltimore & Ohio and Buffalo, Rochester & Pittsburgh traverse basin and follow stream from source to Ellwood City; Bessemer & Lake Erie, Lake Shore & Michigan Southern, Erie and several others traverse basin.

Utilization—Main stream and tributaries for water supply at many places. Water power developed by three dams at Eastvale, Beaver Falls and New Brighton, for pumping water supply from river, generating electricity, and for various manufacturing purposes. It has been proposed to utilize this river from source to mouth for navigation as part of the Lake Erie-Ohio River Ship Canal.

BEAVER (LITTLE) RIVER (INCLUDING NORTH FORK)

Tributary to Ohio River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—North Fork in Mahoning County, Ohio; elevation 1,180. Main stream formed by junction of Middle Fork and West Fork, in Columbiana County, Ohio.

Course—North Fork: southeasterly, crossing state boundary at elevation 993, through Lawrence County into Beaver County; thence southwesterly, crossing state boundary at elevation 830, into Ohio to Little Beaver River. Main stream: southeasterly into Beaver County, Pennsylvania, to Ohio River, crossing state boundary three times.

Mouth—North Fork: at St. Clair, O.; elevation 735. Main stream: at Smiths Ferry, near Pennsylvania-Ohio boundary; elevation 655.7.

Length—North Fork: in Pa., 21 miles. Main stream: from St. Clair, O., to mouth, 7.5 miles.

Drainage Area—Total, 494.6 square miles; in Pa., 102.0 square miles in southwestern Lawrence and northwestern Beaver counties.

Topography—Drainage area of North Fork above Darlington, rolling hills and broad valleys; terminal moraine traverses basin at this point from east to west; thence to mouth, broad valley narrows and is hemmed in with steep hills 400 to 500 feet high. The main Little Beaver River continues thence to mouth in a gorge-like valley with rolling hills beyond.

Channel—Sinuous, through clay and gravel in upper course; through terminal moraine in middle course, and carved deeply in sandstone in lower course.

Profile—Rate of fall per mile: North Fork, in Pa., 7.8 feet. Main stream, from St. Clair, O., to mouth, 10.6 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Enon Valley (354), New Galilee (453), Darlington (311), Smiths Ferry (580).

Industries—Clay works; coal; oil; agriculture.

Railroads—Pennsylvania Lines West of Pittsburgh traverse basin and follow stream from Enon Valley to New Galilee.

BEAVER RUN

Tributary to Kiskiminitas River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Salem Township, western central Westmoreland County; elevation 1,280.

Course—Northerly to Kiskiminitas River.

Mouth—At Paulton; elevation 786.

Length—Twenty miles.

Drainage Area—Contains 54.8 square miles in northwestern Westmoreland County.

Topography—Broken and hilly; upper basin of main valley has alluvial flats bordered with gently sloping hills; becomes narrow and gorge-like in lower course with steep hills, 300 to 400 feet above water.

Channel—Sinuous, bordered with flood plains in upper basin; tortuous and flanked with steep banks in lower course; shale, sandstone and limestone formations, containing some coal and gas.

Profile—Rate of fall, from elevation 1,200 to mouth, 19.5 miles, 21.2 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Delmont (650), Wiester (40), Mamont (58), North Washington (57).

Industries—Agriculture.

Utilization—Water supply by Apollo Water Co.

BEAVERDAM BRANCH

Tributary to Frankstown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Logan Township, western central Blair County.

Course—Southeasterly, by a circuitous route, to Frankstown Branch Juniata River.

Mouth—Near Hollidaysburg; elevation 925.

Length—Twelve miles.

Drainage Area—Contains 89.9 square miles in eastern Cambria and western Blair counties.

Topography—Mountainous; wide main valley, flanked with steep hills.

Channel—Sinuous, through shale, sandstone and limestone formations; bordered by wide alluvial flats in lower course.

Profile—Rate of fall, from elevation 1,100 to mouth, 8.5 miles, 20.6 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Gaysport (917), Altoona (52,127), Duncansville (1,263), Hollidaysburg (3,734).

Industries—Foundry; boiler works; railroad shops; brick works; silk mills; glass factories.

Railroads—Pennsylvania traverses basin and follows stream in lower course.

Utilization—Water supply as follows: main stream at Gaysport; Mill Run at Altoona and a few villages; Spencer Run at Blair County Home.

BEAVERDAM RUN

Tributary to Clearfield Creek.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Clearfield Township, northeastern Cambria County; elevation 1,760.

Course—Northeasterly to Clearfield Creek.

Mouth—At Fiske; elevation 1,383.

Length—Eleven miles.

Drainage Area—Contains 49.0 square miles in northeastern Cambria County.

Topography—Rolling, hilly country in Allegheny Plateau; main valley has wide bottom land in middle and lower basin.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Profile—Rate of fall per mile: from source to Killbuck Run, elevation 1,400, 5.5 miles, 65.5 feet; thence to mouth, 5.5 miles, 3.1 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

Utilization—Water supply by Beaverdam Water Co., in conjunction with Swartz Run and Clearfield Creek.

BEECH CREEK

Tributary to Bald Eagle Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—Formed by junction of North and South forks, in Snow Shoe Township, northern central Center County.

Course—Easterly, by a circuitous route, to Bald Eagle Creek, forming Clinton-Center county boundary for last nine miles.

Mouth—At Beech Creek.

Length—Twenty-three and one-half miles.

Drainage Area—Contains 156.7 square miles in northern Center and southern Clinton counties.

Topography—Mountainous; upper basin lies northwest of Allegheny Front, while main valley cuts through same in lower course of stream, forming a deep gorge.

Channel—Tortuous, through shale and sandstone formations, containing bituminous coal.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Clarence (250), Snow Shoe (643), Monument (120), Beech Creek (584).

Industries—Coal mines; agriculture; brick works.

Railroads—Pennsylvania traverses basin; New York Central & Hudson River traverses basin and follows stream from source to mouth.

Utilization—Small tributary for water supply at Snow Shoe. Water power for small mills at Beech Creek.

BENNETT BRANCH

Tributary to Sinnemahoning Creek.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Huston Township, northwestern Clearfield County.

Course—Northeasterly, through Elk County, into Cameron County; thence southeasterly to Sinnemahoning Creek.

Mouth—At Driftwood.

Length—Thirty-seven miles.

Drainage Area—Contains 356.6 square miles, embracing portions of Clearfield, Elk and Cameron counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Geology—Shale and sandstone formations, containing bituminous coal deposits.

Channel—Sinuous, through narrow valley with little bottom land; gravel bed with rock ledges and steep banks.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Winterburne (301), Penfield (716), Weedville (320), Caledonia (172), Medix Run (300), Benezett (314), Dents Run (250), Driftwood (517).

Industries—Tannery; coal mines; timber.

Pollution—Waste from tannery and coal mines.

Railroads—Pennsylvania and Buffalo & Susquehanna follow stream from source to mouth; Pittsburgh, Shawmut & Northern and several small railroads traverse basin.

Utilization—Industrial supply at Tyler; small tributary for water supply at Driftwood.

BENS CREEK

Tributary to Stony Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—Formed by junction of North Fork and South Fork, in Conemaugh Township, northern Somerset County; elevation 1,300.

Course—Northeasterly to Stony Creek.

Mouth—At Somerset-Cambria county boundary; elevation 1,190.

Length—Three miles.

Drainage Area—Contains 57.6 square miles in northern Somerset and southwestern Cambria counties.

Topography—Mountainous; valleys are narrow and sides precipitous.

Channel—Sinuous, through shale and sandstone formations; bordered with alluvial flood plains in lower basin.

Profile—Rate of fall, from source to mouth, 36.7 feet per mile.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Conner (76).

Industries—Coal; agriculture.

Utilization—Dalton Run and Mill Creek for water supply at Johnstown.

BENTLEY CREEK

Tributary to Chemung River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Springfield Township, northwestern Bradford County.

Course—Northwesterly into New York to Chemung River.

Mouth—In New York.

Length—In Pa., 10.5 miles.

Drainage Area—In Pa., 54.4 square miles in northwestern Bradford County.

Topography—Rough and hilly; valley flanked with high, steep hills.

Channel—Sinuous, through shale and sandstone formations; bordered with alluvial plains.

Precipitation—Mean annual, 30 to 35 inches.

ARTIFICIAL FEATURES

Towns—Bigpond (125), Bentley Creek (130), Ridgebury (50).

Industries—Agriculture.

BERMUDIAN CREEK

Tributary to Conewago Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Tyrone Township, northern Adams County; elevation 1,010.

Course—Southeasterly into York County to Conewago Creek.

Mouth—One-half mile south of Roler; elevation 356.

Length—Twenty-three and one-half miles.

Drainage Area—Contains 112.2 square miles, embracing portions of Cumberland, Adams and York counties.

Topography—Rolling agricultural country, being hilly in headwaters.

Channel—Sinuous, through red shale and sandstone formations.

Profile—Rate of fall per mile: from source to elevation 600, 6.5 miles, 63.1 feet; thence to mouth, 17 miles, 14.4 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Idaville (225), York Springs (299), Bermudian (150), Hall (200), Wellsville (308).

Industries—Agriculture.

Railroads—Philadelphia & Reading traverses upper basin.

Utilization—Water power by a few small grist mills.

BERMUDIAN CREEK, NORTH BRANCH

Tributary to Bermudian Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In South Mountain, Franklin Township, northwestern York County; elevation 1,100.

Course—Southeasterly to Bermudian Creek.

Mouth—One-half mile southwest of Hall; elevation 416.

Length—Eleven and one-half miles.

Drainage Area—Contains 31.1 square miles in northwestern York County.

Topography—Mountainous in headwaters; main basin broken and hilly; alluvial flats at foot of flanking hills.

Channel—Sinuous, through red shale and sandstone formations.

Profile—Rate of fall, from elevation 600 to mouth, 10.5 miles, 17.5 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Clear Spring (48), Bigdam (42), Franklintown (216), Mt. Top (45).

Industries—Agriculture.

BIG CREEK (or POHOPOCO CREEK)

For description see Pohopoco Creek.

BIG RUN

Tributary to Beech Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Noyes Township, middle southern Clinton County.

Course—Southeasterly to Beech Creek.

Mouth—One mile west of Monument.

Length—Twelve and one-half miles.

Drainage Area—Contains 29.1 square miles in middle southern Clinton County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; basin lies northwest of Allegheny Front.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture; timber.

BIG RUN

Tributary to Shenango River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Slippery Rock Township, eastern Lawrence County; elevation 1,210.

Course—Westerly to Shenango River.

Mouth—At New Castle; elevation 780.

Length—Eleven miles.

Drainage Area—Contains 33.9 square miles in eastern central Lawrence County.

Topography—Rolling agricultural land in upper basin; main valley narrow in lower basin and flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from source to elevation 900, 9 miles, 34.4 feet; thence to mouth, 2 miles, 60 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—New Castle (36,280).

Industries—Iron and steel mills; agriculture.

Railroads—Western Allegheny follows stream from headwaters to mouth.

Utilization—Industrial supply at New Castle.

BIG RUN

Tributary to Shenango River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Greene Township, northwestern Mercer County; elevation 1,200.

Course—Southeasterly to Shenango River.

Mouth—Three miles south of Greenville; elevation 920.

Length—Eleven miles.

Drainage Area—Contains 33.8 square miles in northwestern Mercer County.

Topography—Broad valley; gently sloping hills at headwaters, becoming steep in lower course.

Channel—Winding, through glacial drift.

Profile—Rate of fall, from elevation 1,100 to mouth, 10 miles, 18 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

Railroads—Pennsylvania Lines West of Pittsburgh and Erie traverse lower basin.

BLACK CREEK

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—Formed by junction of Hazle and Beaver creeks, 1.5 miles northwest of Weatherly, western Carbon County; elevation 1,270.

Course—Easterly to Lehigh River.

Mouth—At Penn Haven Junction.

Length—Six and one-half miles.

Drainage Area—Contains 62.6 square miles in western Carbon, southern Luzerne and northeastern Schuylkill counties.

Topography—Broken, mountainous country; narrow valley flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing deposits of anthracite at headwaters.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Hazleton (25,452), Weatherly (2,501).

Industries—Coal mines; textile mills; railroad shops; agriculture.

Pollution—Waste from coal mines.

Railroads—Lehigh Valley traverses basin and follows stream from source to mouth.

Utilization—Quakake Creek and Dreck Creek, a tributary of Hazle Creek, for water supply at Hazleton; Penrose Run, a tributary of Hazle Creek, for water supply at Weatherly. Water power for a few small grist mills.

BLACK CREEK

Tributary to Nescopeck Creek.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Foster Township, southeastern Luzerne County; elevation 1,550.

Course—Southwesterly to Gowen; thence northerly to Nescopeck Creek.

Mouth—At Tank; elevation 662.

Length—Twenty-four miles.

Drainage Area—Contains 62.2 square miles, embracing portions of Luzerne, Schuylkill and Columbia counties.

Topography—Mountainous; upper basin has wide valley containing some swamps; lower basin has narrow valley where stream cuts through Buck Mountain.

Channel—Sinuous, through shale and sandstone formations containing coal; in a gorge through Buck Mountain.

Profile—Rate of fall per mile: from source to elevation 1,400, 9.5 miles, 15.8 feet; thence to elevation 1,100, 7 miles, 42.9 feet; thence to mouth, 7.5 miles, 58.4 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Freeland (6,197), Drifton (2,129), Jeddo (377), Hazleton (25,452), West Hazleton (4,715), Gowen (306), Rock Glen (317).

Industries—Coal mines; agriculture.

Railroads—Pennsylvania traverses basin and follows stream in lower course; Lehigh Valley traverses basin and follows stream in upper course.

Utilization—Water supply as follows: East Run and Stable Run at Tomhicken; Schaars Run at Deringer and Fern Glen; Deep Run and Roberts Run at Gowen and Deep Run; Falls Creek at Rock Glen; Boyds Run at Hazleton; Grape Run at Cranberry.

BLACK BEAR RUN

Tributary to Moshannon Creek.
Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Rush Township, southwestern Center County.

Course—Northeasterly to Moshannon Creek.

Mouth—Southeast of Winburne.

Length—Five miles.

Drainage Area—Contains 6.3 square miles in southwestern Center County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Utilization—Water supply at Winburne, Lanse and Kylertown; New York Central & Hudson River Railroad supply at Black Bear.

BLACKLEGS CREEK

Tributary to Kiskiminitas River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Armstrong Township, western Indiana County; elevation 1,260.

Course—Southwesterly to Kiskiminitas River.

Mouth—One mile north of Saltsburg; elevation 826.

Length—Fifteen and one-half miles.

Drainage Area—Contains 45.4 square miles in southwestern Indiana and southern Armstrong counties.

Topography—Broken and hilly; main valley flanked with steep hills, 300 to 400 feet high.

Channel—Sinuous, bordered with alluvial flood plains in lower course.

Profile—Rate of fall, from source to mouth, 28 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

Blacklick Creek

ARTIFICIAL FEATURES

Towns—West Lebanon (300), Elders Ridge (95), Clarksburg (200).

Industries—Coal; gas; agriculture.

Railroads—Buffalo, Rochester & Pittsburgh traverses basin and follows stream from source to Clarksburg.

Utilization—Main stream and Harpers Run for water supply at Iselin.

BLACKLICK CREEK

Tributary to Conemaugh River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—Formed by junction of North and South branches near Vintondale, on Indiana-Cambria county boundary; elevation 1,378.

Course—Westerly, through Indiana County, to Conemaugh River.

Mouth—Two miles northwest of Blairsville; elevation 894.

Length—Twenty-nine and one-half miles.

Drainage Area—Contains 412.0 square miles in southeastern Indiana and western Cambria counties.

Topography—Mountainous in headwaters; main stream cuts through Laurel and Chestnut ridges, which flatten into broad rolling table-lands in northern portion of basin. Main valley is generally broad, having considerable flat lowland on either side of stream. About 39 per cent of basin is wooded, principally on the ridges and steep slopes.

Geology—Shale and sandstone formations containing rich coal beds.

Channel—Tortuous, with rocky bottom; banks are steep where stream cuts through Laurel and Chestnut ridges.

Profile—Rate of fall, from source to mouth, 16.4 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Black Lick, August 1904; discontinued December 1905; re-established January 1907.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Nanty Glo (950), Vintondale (1,410), Black Lick (1,000), Indiana (5,749), Homer City (985), Clymer (1,753), Dixonville (550).

Industries—Extensive coal mines; glass works; foundries; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream from source to mouth; Buffalo, Rochester & Pittsburgh traverses basin and follows stream from source to Black Lick; New York Central & Hudson River traverses upper basin.

Utilization—Industrial supply at Josephine. Twolick Creek and tributaries for domestic and industrial supply; Rummel Run for domestic and industrial supply at Wehrum. Water power for several small grist mills.

BLACKLICK CREEK, NORTH BRANCH (or VETERA BRANCH)

Tributary to Blacklick Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Carroll Township, western central Cambria County; elevation 2,010.

Course—Northwesterly to junction of Teakettle Run; thence southwesterly into Indiana County; thence southerly to join South Branch and form Blacklick Creek, being Indiana-Cambria county boundary for last half mile.

Mouth—Near Vintondale; elevation 1,378.

Length—Eighteen miles.

Drainage Area—Contains 69.7 square miles in western Cambria and eastern Indiana counties.

Topography—Mountainous in headwaters; rolling hills in lower basin; narrow main valley, flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing some limestone and coal.

Profile—Rate of fall, from source to mouth, 35.1 feet per mile.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Ivison (83), Strongstown (200), Belsano (125).

Industries—Coal; timber; agriculture.

Utilization—Small tributary for water supply by Colver Water Co.

BLACKLICK CREEK, SOUTH BRANCH

Tributary to Blacklick Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Cambria Township, western central Cambria County; elevation 2,150.

Course—Southwesterly, by a circuitous route, to join North Branch and form Blacklick Creek.

Mouth—Near Vintondale; elevation 1,378.

Length—Seventeen miles.

Drainage Area—Contains 47.6 square miles in western Cambria County.

Topography—Rough and hilly; main valley flanked with steep hills, 400 to 500 feet high, in lower course, where stream cuts through Laurel Ridge.

Channel—Sinuous, through shale and sandstone formations; rocky bed bordered with alluvial flood plains at the foot of steep hills.

Profile—Rate of fall per mile: from source to elevation 1,680, 11 miles, 42.7 feet; thence to mouth, 6 miles, 50.3 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Nanty Glo (950), Vintondale (1,410).

Industries—Numerous coal mines and clay banks; some timber and agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream from headwaters to mouth.

Utilization—Small tributaries at headwaters and Shuman Run for water supply at Vintondale; Stewart Run and other small tributaries for water supply at Nanty Glo.

BLACK LOG CREEK

Tributary to Aughwick Creek. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In Tuscarora Township, southwestern Juniata County.

Course—Southwesterly into Huntingdon County to Aughwick Creek.

Mouth—At Rock Hill.

Length—Twenty-five and one-half miles.

Drainage Area—Contains 75.8 square miles in southwestern Juniata and southeastern Huntingdon counties.

Topography—Mountainous; long, narrow main valley flanked with parallel ridges; stream cuts through ridge to west near mouth.

Channel—Sinuous, through shale, sandstone and limestone formations; principally a limestone valley; in a gorge through mountains.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Blacklog (173), Shade Gap (143), Orbisonia (618), Rock Hill (504).

Industries—Flour mills; agriculture; timber; clay banks.

Railroads—East Broad Top & Coal Co. traverses basin and follows stream in lower course.

Utilization—Industrial supply at Orbisonia. Water power for a few small mills.

BLAIRS'GAP RUN

Tributary to Beaverdam Branch Frankstown Branch.

Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Juniata Township, southwestern Blair County; elevation 2,410.

Course—Southeasterly to Beaverdam Branch Frankstown Branch Juniata River.

Mouth—Near Duncansville; elevation 975.

Length—Nine miles.

Drainage Area—Contains 27.6 square miles in southeastern Cambria and southwestern Blair counties.

Topography—Mountainous in headwaters; narrow valley flanked with steep, high hills.

Channel—Sinuous, through shale and sandstone formations; in a ravine in upper course.

Profile—Rate of fall per mile: from source to elevation 1,400, 3.5 miles, 288.6 feet; thence to mouth, 5.5 miles, 77.3 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Duncansville (1,263).

Industries—Agriculture.

Railroads—Pennsylvania traverses basin and follows stream from headwaters to mouth.

Utilization—Main stream for water supply by Blair Gap Water Supply Co. Gillans Run for water supply at Duncansville; Adams Run, a tributary of Blairs Run, and Brush Creek, a tributary of Frankstown Branch, for water supply at Hollidaysburg.

BLOCKHOUSE RUN

Tributary to Little Pine Creek.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Liberty Township, southeastern Tioga County.

Course—Southwesterly into Lycoming County to Little Pine Creek.

Mouth—Four miles northeast of English Center.

Length—Fifteen miles.

Drainage Area—Contains 40.7 square miles in southeastern Tioga and northern central Lycoming counties.

Topography—Rough and hilly, with headwaters in glaciated area; narrow valleys flanked with steep, well wooded hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Buttonwood (107).

Industries—Timber; agriculture.

Utilization—Water power for grist mills.

BLOOMING GROVE CREEK

Tributary to Lackawaxen River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—Big Pond in Palmyra Township, northwestern Pike County.

Course—Easterly and northerly to Lackawaxen River.

Mouth—At Glen Eyre.

Length—Twelve miles.

Drainage Area—Contains 25.3 square miles in northwestern Pike County.

Topography—Rolling, hilly country containing lakes and swamps of glacial origin; good storage sites.

Channel—Sinuous, through shale and sandstone formations and glacial drift, being in a sandstone gorge for last three miles.

Lakes—Big Pond (194.8 acres), White Deer Lake (48.3 acres), Kleinhans Mill Pond (21.2 acres).

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Blooming Grove (114), Glen Eyre (50).

Industries—Agriculture; summer resorts; Blooming Grove Hunting and Fishing Club Reserve.

Utilization—Erie Railroad supply at Glen Eyre.

BOBS CREEK

Tributary to Dunning Creek. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Portage Township, southeastern Cambria County; elevation 2,560.

Course—Southerly, through Blair County, into Bedford County to Dunning Creek.

Mouth—At Reynoldsdale; elevation 1,095.

Length—Twenty-one miles.

Drainage Area—Contains 66.5 square miles, embracing portions of Cambria, Blair and Bedford counties.

Topography—Mountainous; narrow valley flanked with steep, high hills; well wooded; rich agricultural bottom lands in lower basin.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 2,300 to 1,200, 13.5 miles, 81.5 feet; thence to mouth, 6.5 miles, 16.2 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Pavia (100), Weyant (100), Osterburg (300), Imler (100), St. Clairsville (101).

Industries—Agriculture.

Railroads—Pennsylvania traverses basin and follows stream in lower course.

BONNIE BROOK

Tributary to Connoquenessing Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Oakland Township, eastern Butler County; elevation 1,300.

Course—Southwesterly to Connoquenessing Creek.

Mouth—Near Butler: elevation 996.

Length—Nine and one-half miles.

Drainage Area—Contains 20.1 square miles in eastern Butler County.

Topography—Rolling country, carved with many small valleys.

Channel—Sinuous, through shale and sandstone formations, containing gas and oil.

Profile—Rate of fall, from elevation 1,200 to mouth, 8.5 miles, 24 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture; oil refining; brass bed works.

Railroads—Baltimore & Ohio follows stream from headwaters to mouth; Buffalo, Rochester & Pittsburgh traverses basin and follows stream in lower course.

BOWMAN CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Fairmount Township, northwestern Luzerne County.

Course—Northeasterly into Wyoming County to North Branch Susquehanna River.

Mouth—Near Tunkhannock.

Length—Twenty-six miles.

Drainage Area—Contains 119.6 square miles in northwestern Luzerne and southern Wyoming counties.

Topography—Rough and hilly country within glaciated area, containing a few small lakes and swamps; narrow main valley flanked with steep hills 800 to 1,000 feet high.

Channel—Sinuous, through shale and sandstone formations and glacial drift; bordered by alluvial flood plains in a few places.

Profile—Rate of fall, from elevations 1,900 to 640, 22 miles, 57.3 feet per mile; thence 3.5 miles to mouth.

Lakes—Rymans Pond (77.7 acres).

HYDROGRAPHIC FEATURES

Gaging Station—Established at Eatonville, January 1914.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Noxen (500), Beaumont (208), Eatonville (161).

Industries—Tannery; agriculture.

Railroads—Lehigh Valley traverses basin and follows stream in upper course.

Utilization—Main stream and Hettesheimer Run for industrial supply at Noxen. Wolf Run for Lehigh Valley Railroad supply at Beth Run. Water power by grist mill.

BRADY RUN

Tributary to Beaver River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Chippewa Township, northern Beaver County; elevation 1,140.

Course—Southeasterly to Beaver River.

Mouth—At Fallston; elevation 674.

Length—Five and one-half miles.

Drainage Area—Contains 25.8 square miles in western Beaver County.

Topography—Hilly; main valley flanked with hills 300 to 400 feet high in lower course.

Channel—Carved in gravel and sandstone; steep banks in lower course.

Profile—Rate of fall, from source to mouth, 84.7 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Blackhawk (47), Fallston (555).

Industries—Agriculture.

BRANDYWINE CREEK

Tributary to Delaware River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—Formed by junction of East and West branches in East Bradford and Pocopson townships, Chester County; elevation 178.

Course—Southeasterly into State of Delaware to Delaware River, being Chester-Delaware county boundary for 3 miles.

Mouth—Near Wilmington, Del.; tidewater.

Length—In Pa., 9.5 miles.

Drainage Area—In Pa., 301.0 square miles, embracing portions of Lancaster, Chester and Delaware counties.

Topography—Rolling agricultural country of the Piedmont Plateau; main valley becomes narrow in State of Delaware and is flanked with steep hills 200 to 300 feet high.

Geology—Upper basin has red shale and sandstone formations with intrusions of trap rock; then stream flows through a narrow belt of limestone and a wide belt of slate into a broad gneiss formation.

Channel—Sinuous, through broad valley, with stretches of alluvial flood plains and bottom lands.

Profile—Rate of fall, from source to state boundary, elevation 138, 4.2 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Chadds Ford, August 1911.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Coatesville (11,084), Downingtown (3,326), West Chester (11,767), Wilmington, Del. (87,411).

Industries—Railroad shops; foundries; iron works; agriculture.

Railroads—Pennsylvania and Philadelphia, Baltimore & Washington traverse basin; Philadelphia & Reading traverses basin and follows stream from source to state boundary.

Utilization—Water power by numerous small mills.

BRANDYWINE CREEK, EAST BRANCH

Tributary to Brandywine Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Welsh Mountain, Chester County, near Berks-Chester county boundary; elevation 740.

Course—Southeasterly to Brandywine Creek.

Mouth—At junction with West Branch; elevation 178.

Length—Twenty-five and one-half miles.

Drainage Area—Contains 123.3 square miles in northwestern Chester County.

Topography—Rolling agricultural country of the Piedmont Plateau; in places main valley is narrow and flanked with steep hills.

Channel—Sinuous, through shale, sandstone, limestone, slate and gneiss formations respectively.

Profile—Rate of fall per mile: from source to elevation 300, 12.5 miles, 35.2 feet; thence to mouth, 13 miles, 9.4 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Glenmoore (275), Downingtown (3,326), Lionville (349), West Chester (11,767).

Industries—Railroad shops; machine shops; foundries; agriculture; paper mills.

Railroads—Pennsylvania traverses basin and follows stream from headwaters to Downingtown; Philadelphia & Reading traverses basin.

Utilization—Two small tributaries for water supply at Downingtown. Main stream for water power by a few small mills.

BRANDYWINE CREEK, WEST BRANCH

Tributary to Brandywine Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Welsh Mountain, near Honey Brook, Honey Brook Township, Chester County; elevation 780.

Course—Southeasterly to Brandywine Creek.

Mouth—At junction with East Branch; elevation 178.

Length—Thirty-one miles.

Drainage Area—Contains 134.6 square miles, principally in western Chester County.

Topography—Rolling agricultural country of the Piedmont Plateau; in places main valley is narrow, flanked with steep hills.

Channel—Sinuous, through shale, sandstone, limestone, slate and gneiss formations respectively.

Profile—Rate of fall per mile: from source to elevation 500, 11 miles, 25.5 feet; thence to Coatesville, elevation 300, 4 miles, 50 feet; thence to mouth, 16 miles, 7.6 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Honey Brook (581), Cambridge (200), Pomeroy (365), Coatesville (11,084).

Industries—Agriculture; iron works; foundries.

Railroads—Pennsylvania traverses basin; Philadelphia & Reading follows stream from headwaters to mouth.

Utilization—Main stream for railroad supply at Coatesville and Brandamore. Rock Run, a proposed source for Coatesville. Sucker Run and Hefners Run, a small tributary, for water supply at Coatesville. Main stream and Buck Run for water power by small mills.

BREAKNECK CREEK

Tributary to Connoquenessing Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Richland Township, northern Allegheny County; elevation 1,240.

Course—Northwesterly into Butler County to Connoquenessing Creek.

Mouth—Near Eidenau; elevation 901.

Length—Fourteen miles.

Drainage Area—Contains 41.9 square miles in southwestern Butler and northern Allegheny counties.

Topography—Hilly, especially in lower part of basin.

Channel—Winding, in clay and gravel.

Profile—Rate of fall per mile: from elevations 1,100 to 1,000, 4 miles, 25 feet; thence to mouth, 9 miles, 11 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Valencia (240), Downieville (178), Mars (1,215), Callery (335), Evans City (1,339).

Industries—Foundry and machine shop; boiler and tank works; carriage works; gas engine and pump works; planing mill; flour and grist mills; oil and gas; agriculture.

Railroads—Baltimore & Ohio traverses basin and follows stream from headwaters to mouth; Buffalo, Rochester & Pittsburgh traverses basin and follows stream in upper course.

BRIAR CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Briar Creek Township, eastern Columbia County; elevation 1,340.

Course—Southeasterly to North Branch Susquehanna River.

Mouth—One mile northeast of Mifflinville; elevation 475.

Length—Six miles.

Drainage Area—Contains 34.2 square miles in eastern Columbia and southwestern Luzerne counties.

Topography—Mountainous; in upper basin valley is narrow and lies between high, steep hills; below Evansville country is rolling.

Channel—Sinuous, through shale and sandstone, with some limestone in lower basin.

Profile—Rate of fall, from elevation 900 to mouth, 5.5 miles, 77.3 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Fowlerville (60), Berwick (5,357), Briar Creek (70).

Industries—Agriculture.

Railroads—Susquehanna, Bloomsburg & Berwick traverses basin.

Utilization—Glen Brook, in conjunction with Varners Run and North Branch Susquehanna River, for water supply at Berwick.

BRODHEADS CREEK

Tributary to Delaware River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Pocono Mountains, Barrett Township, northeastern Monroe County.

Course—Northeasterly into Pike County; thence southerly into Monroe County to Stroudsburg; thence easterly to Delaware River.

Mouth—Near Delaware Water Gap; elevation 292.

Length—Twenty-nine miles.

Drainage Area—Contains 285.0 square miles in eastern Monroe and southwestern Pike counties.

Topography—Broken, mountainous country containing lakes and swamps of glacial origin; well wooded.

Geology—Shale and sandstone formations and glacial drift.

Channel—Sinuous through narrow valley, being a rocky gorge in places and having rapids and falls.

Lakes—Analomink Lake (21.3 acres), Pocohontas Lake (32.9 acres), Plattenburgs Pond (30.5 acres).

Buck Hill Branch Brodheads Creek at Upper Falls

HYDROGRAPHIC FEATURES

Gaging Station—Established at Analomink, September 1908; discontinued October 1913.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Canadensis (200), Mountainhome (140), Analomink (180), East Stroudsburg (3,330), Stroudsburg (4,379).

Industries—Silk and woolen mills; tannery; powder plant; foundry; car shops; glass works; stone quarries; ice harvesting; summer resorts.

Railroads—Delaware, Lackawanna & Western and Wilkes-Barre & Eastern traverse basin, following stream near mouth; Delaware Valley traverses lower basin.

Utilization—Main stream and tributaries for water supply at East Stroudsburg and Buck Hill Falls. Sambo Run for water supply at East Stroudsburg. Water power by grist mills and a hydroelectric plant below Stroudsburg.

BRODHEADS CREEK, WEST BRANCH (or ANALOMINK CREEK)

For description see Analomink Creek.

BROKENSTRAW CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Chautauqua County, southwestern New York.

Course—Southwesterly into Erie County, Pennsylvania; thence southeasterly into Warren County to Allegheny River.

Mouth—At Irvine.

Length—In Pa., 30 miles.

Drainage Area—Total, 324.0 square miles; in Pa., 254.0 square miles in eastern Erie and northwestern Warren counties.

Topography—Rolling hills, well rounded by glacial action; wide agricultural valleys; upper basin contains a few small lakes, ponds and swamps; lower basin well wooded.

Geology—Shale and sandstone formations; terminal moraine crosses middle basin.

Channel—Sinuous, bordered with alluvial flood plains.

Springs—There are a few mineral springs in the vicinity of Corry.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Youngsville, October 1909.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Columbus (316), Corry (5,991), Youngsville (1,406), Spring Creek (300), Garland (467), Pittsfield (375), Irvine (307).

Industries—Timber; sand and gravel quarries; tanneries; oil refineries; brick works; machine and boiler works; agriculture.

Railroads—Pennsylvania follows stream from state boundary to mouth; Erie traverses upper basin; Dunkirk, Allegheny Valley & Pittsburgh traverses basin and follows stream in lower course.

Utilization—Erie Railroad water supply at Columbus. Water power by a few small grist mills.

BROKENSTRAW (LITTLE) CREEK

Tributary to Brokenstraw Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Chautauqua County, southwestern New York; elevation 1,750.

Course—Southeasterly into Warren County, Pennsylvania, to Brokenstraw Creek.

Mouth—At Pittsfield.

Length—In Pa., 14.5 miles.

Drainage Area—Total, 81.3 square miles; in Pa., 50.7 square miles in northwestern Warren County.

Topography—Upper basin contains well rounded hills and broad valleys, with some ponds and swamps due to glacial action; lower basin outside glaciated area.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Bear Lake (221), Lottsville (230), Freehold (150), Pittsfield (375).

Industries—Timber; agriculture.

Railroads—Erie traverses basin.

BROWN RUN

Tributary to West Branch Susquehanna River.
Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Barr Township, northwestern Cambria County; elevation 1,960.

Course—Northerly to West Branch Susquehanna River.

Mouth—At Spangler; elevation 1,460.

Length—Three miles.

Drainage Area—Contains 2.6 square miles in northwestern Cambria County.

Topography—Rough and hilly; narrow valley flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Profile—Rate of fall, from source to mouth, 166.7 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Spangler (2,700).

Industries—Coal mines.

Utilization—For water supply, in conjunction with Stony Creek, by Northern Cambria Water Co.

BROWNS CREEK

Tributary to South Fork Tenmile Creek. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Morris Township, northern Greene County; elevation 1,300.

Course—Southeasterly to South Fork Tenmile Creek.

Mouth—One mile west of Waynesburg; elevation 936.

Length—Twelve miles.

Drainage Area—Contains 45.9 square miles in northern Greene County.

Topography—Hilly; main valley flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 1,100 to 1,000, 3 miles, 33.3 feet; thence to mouth, 7.5 miles, 8.5 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Nineveh (148), Sycamore (110), Swarts (60).

Industries—Coal; oil; gas; agriculture.

Railroads—Waynesburg & Washington traverses basin and follows stream in lower course.

BROWNS RUN

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Kinzua Township, eastern Warren County.

Course—Westerly to Allegheny River.

Mouth—Near Glade; elevation 1,180.

Length—Seven and one-half miles.

Drainage Area—Contains 24.6 square miles in eastern Warren County.

Topography—Rough and hilly; narrow valley flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing rich oil deposits.

Profile—Rate of fall, from elevation 1,800 to mouth, 6.5 miles, 95.4 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Stoneham (271).

Industries—Agriculture.

Railroads—Pennsylvania and Tionesta Valley traverse basin.

Utilization—Morrison Run for water supply at Warren.

BRUBAKER RUN

Tributary to Chest Creek.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Elder Township, northwestern Cambria County; elevation 2,100.

Course—Northerly to Chest Creek.

Mouth—About ¾ mile south of Cambria-Clearfield county boundary; elevation 1,400.

Length—Seven miles.

Drainage Area—Contains 12.9 square miles in northwestern Cambria County.

Topography—Rough, hilly country; narrow valley flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing rich coal deposits.

Profile—Rate of fall, from source to mouth, 100 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Hastings (2,125).

Industries—Agriculture; coal mines.

Pollution—Waste from coal mines.

Railroads—Pennsylvania follows stream from Hastings to mouth.

BRUSH CREEK

Tributary to Turtle Creek. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Hempfield Township, western central Westmoreland County, 4 miles north of Greensburg; elevation 1,270.

Course—Southwesterly to Jeannette; thence northwesterly to Turtle Creek.

Mouth—At Trafford; elevation 756.

Length—Twenty miles.

Drainage Area—Contains 56.9 square miles in western Westmoreland and eastern Allegheny counties.

Topography—Broken and hilly; main valley is narrow and flanked with steep hills; almost entirely deforested.

Channel—Sinuous, between steep banks; carved in shale and sandstone formations.

Profile—Rate of fall per mile: from source to Jeannette, elevation 1,000, 4.5 miles, 60 feet; thence to mouth, 15.5 miles, 15.7 feet.

HYDROGRAPHIC FEATURES

Gaging Station—Established near Trafford, July 1914.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Jeannette (8,077), Penn (1,048), Manor (1,039), Claridge (1,200), Irwin (2,886), North Irwin (646), Larimer (1,305), Trafford (1,959).

Industries—Extensive coal mining; rubber works; glass works.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream from Jeannette to mouth.

Utilization—Tinker Run for water supply at Irwin and North Irwin.

BRUSH CREEK

Tributary to Connoquenessing Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Pine Township, northern Allegheny County; elevation 1,180.

Course—Northwesterly, through Butler County, into Beaver County to Connoquenessing Creek.

Mouth—Three miles southeast of Ellwood City; elevation 854.

Length—Twenty-two miles.

Drainage Area—Contains 55.8 square miles, embracing portions of Allegheny, Butler and Beaver counties.

Topography—Rolling hills at headwaters; steep hillsides bordering flat-bottomed main valley.

Channel—Sinuous, through shale and sandstone formations, containing oil.

Profile—Rate of fall per mile: from elevations 1,100 to 1,000, 4.5 miles, 22.2 feet; thence to mouth, 16.5 miles, 8.8 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Thornhill (93), Ogle (100), Brush Creek (200).

Industries—Agriculture.

BRUSH CREEK

Tributary to Shavers Creek. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—Formed by junction of South Brush Creek and Little Brush Creek, in Brush Creek Township, western Fulton County.

Course—Northwesterly into Bedford County to Shavers Creek.

Mouth—One mile east of Mench.

Length—Six and one-half miles.

Drainage Area—Contains 46.4 square miles in western Fulton and eastern Bedford counties.

Topography—Mountainous; branches lie in narrow valley between mountain ranges; below junction main stream cuts through ridge and enters more open country.

Channel—Sinuous, through shale and sandstone formations; in a gorge through mountain.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Akersville (23), Emmaville (25), Crystal Spring (50), Gapsville (43), Jackson Mills (23).

Industries—Agriculture.

Utilization—Water power for small grist mill at Gapsville.

BRUSH CREEK

Tributary to Wills Creek. Basin: Potomac.

NATURAL FEATURES

Source—In Northampton Township, southeastern Somerset County.

Course—Southeasterly, by a circuitous route, to Wills Creek.

Mouth—One mile west of Fairhope.

Length—Ten miles.

Drainage Area—Contains 32.4 square miles in southeastern Somerset County.

Topography—Mountainous.

Channel—Sinuous, through sandstone formations.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Dividing Ridge (34), Johnsburg (95).

Industries—Agriculture.

BUCK RUN

Tributary to West Branch Brandywine Creek.
Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In West Caln Township, western Chester County; elevation 760.

Course—Southeasterly, by a circuitous route, to West Branch Brandywine Creek.

Mouth—Near Laurel; elevation 235.

Length—Sixteen and one-half miles.

Drainage Area—Contains 48.4 square miles in western Chester County.

Topography—Broken and hilly agricultural country; in places main valley narrows and is flanked with steep hills.

Channel—Sinuous, through shale, sandstone and some limestone formations.

Profile—Rate of fall, from source to mouth, 31.8 feet per mile.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Sadsburyville (150), Parkesburg (2,522), Pomeroy (365), Doe Run (200).

Industries—Agriculture.

Railroads—Pennsylvania traverses basin and follows stream from Pomeroy to Buck Run.

Utilization—Doe Run for water power by a few mills.

BUFFALO CREEK

Tributary to Allegheny River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Fairview Township, eastern Butler County, 2 miles east of Chicora; elevation 1,350.

Course—Southerly, in eastern Butler and western Armstrong counties, to Allegheny River.

Mouth—At Freeport; elevation 736.

Length—Thirty-three miles.

Drainage Area—Contains 170.3 square miles in eastern Butler and western Armstrong counties.

Topography—Broken and hilly; main valley is narrow and flanked with steep hills, 300 to 400 feet high.

Channel—Tortuous, through shale and sandstone formations, containing some oil, gas and coal; gorge-like, principally in lower course, bordered with narrow flats in places.

Profile—Rate of fall per mile: from source to elevation 1,100, 5 miles, 50 feet; thence to mouth, 28 miles, 13 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Chicora (1,200), Millerstown (993), Worthington (436), West Winfield (263), Freeport (2,248).

Industries—Coal mines; oil; gas; agriculture.

Pollution—Waste from coal mines near source.

Railroads—Pennsylvania traverses basin and follows stream in lower course; Winfield follows stream in middle course; Buffalo, Rochester & Pittsburgh and Baltimore & Ohio traverse basin.

Utilization—Water power by grist mills at Worthington and Craigsville.

BUFFALO CREEK

Tributary to Raystown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Harrison Township, southwestern Bedford County.

Course—Northeasterly to Raystown Branch Juniata River.

Mouth—At Manns Choice; elevation 1,114.

Length—Eleven miles.

Drainage Area—Contains 25.5 square miles in southwestern Bedford County.

Topography—Mountainous; narrow main valley flanked with high, steep ridges; well wooded; mineral springs in basin.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Buffalo Mills (180), Sulphur Springs (63), Manns Choice (341).

Industries—Agriculture.

Railroads—Pennsylvania follows stream from Buffalo Mills to mouth.

Utilization—Water power for a few small mills.

BUFFALO CREEK

Tributary to Juniata River. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In Madison Township, western Perry County.

Course—Northeasterly to Juniata River.

Mouth—Near Newport; elevation 369.

Length—Twenty-six and one-half miles.

Drainage Area—Contains 69.7 square miles in northwestern Perry County.

Topography—Mountainous; narrow valley flanked with high, steep hills; well wooded.

Channel—Tortuous, through shale, sandstone and limestone formations.

Profile—Rate of fall, from elevation 480 to mouth, 9 miles, 12.3 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Ickesburg (430), Eshcol (95), Markelsville (263).

Industries—Agriculture.

Utilization—Water power by a few small grist mills.

BUFFALO CREEK

Tributary to Casselman River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Brothers Valley Township, eastern Somerset County.

Course—Southwesterly to Casselman River.

Mouth—At Garrett.

Length—Eleven miles.

Drainage Area—Contains 31.0 square miles in central Somerset County.

Topography—Rolling, agricultural and mining country, 80 per cent deforested.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Berlin (1,336), Beachdale (27), Garrett (848).

Industries—Agriculture; timber; pulp mills.

Railroads—Baltimore & Ohio traverses basin and follows stream from headwaters to mouth.

Utilization—Berlin gets water supply from spring at headwaters. Baltimore & Ohio Railroad supply at Beachdale.

BUFFALO CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Hartley Township, western Union County.

Course—Easterly to West Branch Susquehanna River.

Mouth—At Lewisburg; elevation 441.

Length—Twenty-one miles.

Drainage Area—Contains 128.2 square miles in eastern Center and central Union counties.

Topography—Mountainous in headwaters; broad main valley flanked with steep ridges.

Channel—Sinuous, through sandstone and limestone formations, containing some iron ore.

Profile—Rate of fall, from elevation 500 to mouth, 8.5 miles, 6.9 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established near Lewisburg, September 1913.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Mifflinburg (1,559), Cowan (150), Mazeppa (185), Buffalo Roads (142), Kelly Point (97), Lewisburg (3,081).

Industries—Flour mills; agriculture; furniture factories; brick works.

Railroads—Pennsylvania traverses southern part of basin.

Utilization—Spruce Run for water supply by White Deer Mountain Water Co. Water power for a few small grist mills.

BUFFALO CREEK

Tributary to Ohio River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In East Finley Township, southwestern Washington County; elevation 1,290.

Course—Northwesterly into West Virginia to Ohio River, crossing state boundary at elevation 844.

Mouth—At Wellsburg, W. Va.

Length—In Pa., 21.5 miles.

Drainage Area—In Pa., 111.7 square miles in western Washington County.

Topography—Hilly; valleys flanked with steep hills 400 to 500 feet high.

Channel—Tortuous, through clay and sandstone; narrow flood plains.

Profile—Rate of fall, from elevation 1,100 to state boundary, 20 miles, 12.8 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Claysville (1,045), Taylorstown (271), West Middletown (274).

Industries—Coal mines; oil; gas; agriculture.

Railroads—Baltimore & Ohio traverses upper basin.

Utilization—Small tributary of Dutch Fork for water supply at Claysville.

BUFFALO CREEK, NORTH BRANCH

Tributary to Buffalo Creek.

Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Hartley Township, western Union County.

Course—Easterly, by a circuitous route, to Buffalo Creek.

Mouth—One mile northeast of Mifflinburg.

Length—Eleven miles.

Drainage Area—Contains 16.2 square miles in western Union County.

Topography—Mountainous; narrow valley flanked with steep hills.

Channel—Sinuous, through sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

Utilization—Water supply at Mifflinburg.

BUFFALO (LITTLE) CREEK

Tributary to Buffalo Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Jefferson Township, southeastern Butler County; elevation 1,310.

Course—Southeasterly to Buffalo Creek.

Mouth—At Winfield Junction; elevation 794.

Length—Nine and one-half miles.

Drainage Area—Contains 25.9 square miles in southeastern Butler County.

Topography—Rolling hills, with slopes of main valley becoming steeper toward mouth.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall, from source to mouth, 54.3 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Marwood (80), Cabot (175).

Industries—Agriculture; coal; oil; gas.

Railroads—Pennsylvania follows stream from source to mouth.

BUFFALO RUN

Tributary to Spring Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Patton Township, southern central Center County; elevation 1,720.

Course—Northeasterly to Spring Creek.

Mouth—At Bellefonte; elevation 728.

Length—Fifteen miles.

Drainage Area—Contains 35.4 square miles in southern central Center County.

Topography—Northwestern side of basin drains wooded slope of Bald Eagle Ridge; southeast side of main valley has rolling agricultural land beyond steep slopes to water.

Channel—Sinuous, through sandstone and limestone formations.

Profile—Rate of fall per mile: from elevation 1,400 to Waddle, elevation 1,100, 3.5 miles, 85.7 feet; thence to mouth, 10.5 miles, 35.4 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Buffalo Run (120), Waddle (50), Fillmore (63), Bellefonte (4,145).

Industries—Agriculture; limestone quarries; iron ore; machine shop; planing mills.

Railroads—Bellefonte Central traverses basin and follows stream from headwaters to mouth.

Utilization—Bellefonte Central Railroad supply at Coleville.

BULL CREEK

Tributary to Allegheny River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Middlesex Township, southern Butler County; elevation 1,180.

Course—Southeasterly into Allegheny County to Allegheny River.

Mouth—At Tarentum; elevation 731.5.

Length—Thirteen miles.

Drainage Area—Contains 50.0 square miles in southeastern Butler and northeastern Allegheny counties.

Topography—Broken and hilly; main valley has alluvial flats flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 1,100 to 900, 4 miles, 50 feet; thence to mouth, 8.5 miles, 19.8 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Tarentum (7,414).

Industries—Glass, paper and steel works at Tarentum; agriculture.

Railroads—Bessemer & Lake Erie traverses upper basin.

BULLARD CREEK

Tributary to Wysox Creek.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Litchfield Township, northeastern Bradford County.

Course—Southeasterly, by a circuitous route, to Wysox Creek.

Mouth—One mile southwest of Rome.

Length—Eleven and one-half miles.

Drainage Area—Contains 25.5 square miles in northeastern Bradford County.

Topography—Rough and hilly; narrow valley flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 30 to 40 inches.

ARTIFICIAL FEATURES

Towns—Bumpville (140), North Rome (105).

Industries—Agriculture.

BURGOON RUN

Tributary to Beaverdam Branch Frankstown Branch.

Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—Formed by junction of Glenwhite Run and Kittanning Run, in Logan Township, western Blair County; elevation 1,520.

Course—Southeasterly to Beaverdam Branch Frankstown Branch Juniata River.

Mouth—At Canan; elevation 1,045.

Length—Five miles.

Drainage Area—Contains 14.8 square miles in eastern Cambria and western Blair counties.

Topography—Headwaters in mountains; upper valley is narrow, flanked with steep, high hills; lower valley widens near mouth.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall, from elevation 1,280 to mouth, 3.5 miles, 67.1 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Glenwhite (196), Kittanning Point (127), El Dorado (229).

Industries—Agriculture.

Railroads—Pennsylvania traverses basin and follows stream in upper course.

Utilization—Main stream, in conjunction with Scotch Run and McGarvey Run, for water supply at Altoona.

BUSHKILL CREEK

Tributary to Delaware River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Blue Mountains, Moore Township, northwestern Northampton County.

Course—Southeasterly to Delaware River.

Mouth—At Easton; elevation 158.

Length—Twenty miles.

Drainage Area—Contains 74.8 square miles in central Northampton County.

Topography—Headwaters drain southern slope of Kittatinny Range; main basin lies within Piedmont Plateau, containing rolling, hilly country.

Channel—Sinuous, through slate formation in upper basin and limestone in lower basin.

Profile—Rate of fall, from elevation 340 to mouth, 8.5 miles, 21.4 feet per mile.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Windgap (832), Katellen (131), Aluta (70), Bushkill Center (57), Belfast (278), Stockertown (426), Tatamy (512), Nazareth (3,978), Walters (105), Easton (28,523).

Industries—Slate quarries; silk mills; railroad shops; cement works; agriculture.

Railroads—Lehigh Valley follows stream from Belfast Junction to mouth; Delaware, Lackawanna & Western and Lehigh & New England traverse basin.

Utilization—Private water supply at Tatamy. Water power by several grist and other small mills.

BUSHKILL (BIG) CREEK

Tributary to Delaware River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—Pecks Pond, in Blooming Grove and Porter townships, southern central Pike County.

Course—Southwesterly and southeasterly to Delaware River, crossing Pike-Monroe county boundary three times and being the boundary for last 3 miles.

Mouth—Near Bushkill; elevation 325.

Length—Twenty-two miles.

Drainage Area—Contains 149.2 square miles in southwestern Pike and northeastern Monroe counties.

Topography—Broken, mountainous country containing many lakes and swamps of glacial origin; well wooded.

Channel—Sinuous, through shale and sandstone formations and glacial drift; many cascades in course, and in a rocky gorge from Resseca to junction of Saw Creek, widening thence to mouth.

Lakes—Pecks Pond (300 acres), Dorys Dam (52.0 acres), Porters Lake (224 acres), Beaver Run Club Dam (78.0 acres), Lake Laura (122.2 acres), Lake Earnest (32.6 acres), Lake Belle (40.1 acres), Pickerel Pond (108.5 acres).

HYDROGRAPHIC FEATURES

Gaging Station—Established at Shoemakers, September 1908.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Bushkill (350).

Industries—Timber; agriculture; ice harvesting; summer resorts; Blooming Grove Hunting and Fishing Club Reserve.

Railroads—Delaware Valley traverses lower basin.

Utilization—Water power by grist mills and sawmills; hydroelectric plant at Bushkill.

BUSHKILL (LITTLE) CREEK

Tributary to Big Bushkill Creek. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Dingman Township, central Pike County; elevation 1,370.

Course—Southerly to Big Bushkill Creek.

Mouth—At Bushkill.

Length—Sixteen miles.

Drainage Area—Contains 26.5 square miles in southern Pike County.

Topography—Broken, mountainous country containing lakes and swamps of glacial origin; well wooded.

Channel—Sinuous, through shale and sandstone formations and glacial drift; cascades, including Bushkill Falls.

Lakes—Minks Pond (89.6 acres), Lake Maskanoza (146.5 acres), Forest Lake (77.7 acres), Lake Taminent (79.0 acres), Lehman Lake (20 acres).

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Forest Park (20), Bushkill (350).

Industries—Agriculture; ice harvesting; summer resorts.

Utilization—Water power by hydroelectric plant and a few small grist mills.

BUSHKILL (MIDDLE) CREEK (or SAW CREEK)

For description see Saw Creek.

BUTLER CREEK

Tributary to Tunkhannock Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Jackson Township, eastern Susquehanna County.

Course—Southwesterly to Tunkhannock Creek.

Mouth—One-half mile north of Lenox; elevation 910.

Length—Thirteen and one-half miles.

Drainage Area—Contains 37.3 square miles in eastern Susquehanna County.

Topography—Rough and hilly; main valley has narrow alluvial flood plains, flanked with steep hills rounded by glacial action; many small lakes and swamps.

Channel—Sinuous, through sandstone formation and glacial drift.

Lakes—Butler Lake (24.5 acres), Tingley Lake (42.3 acres), Tyler Lake (35.9 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Lakeview (40), Gibson (237), Harford (275).

Industries—Agriculture.

Utilization—Tyler Lake for water supply at Harford.

BUTTERMILK CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In West Abington Township, northwestern Lackawanna County.

Course—Southwesterly into Wyoming County to North Branch Susquehanna River.

Mouth—At Falls; elevation 573.

Length—Seven miles.

Drainage Area—Contains 27.3 square miles in northwestern Lackawanna and southeastern Wyoming counties.

Topography—Rough and hilly; valley flanked with steep hills rounded by glacial action.

Channel—Sinuous, through sandstone formation and swamps in the glacial drift; bordered by bottom lands in places and through a narrow defile near mouth.

Lakes—Lake Winola (190.3 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Lake Winola (60), Mill City (415), Falls (155).

Industries—Agriculture; summer resort.

BUTTONWOOD CREEK (or SOLOMON CREEK)

Tributary to North Branch Susquehanna River.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Penobscot Mountain, Fairview Township, central Luzerne County; elevation 1,880.

Course—Northerly to Wilkes-Barre; thence westerly to North Branch Susquehanna River.

Mouth—Near Wilkes-Barre; elevation 520.

Length—Eight and one-half miles.

Drainage Area—Contains 17.6 square miles in central Luzerne County.

Topography—Mountainous in headwaters, having gorge-like valley; lower basin is open country along Susquehanna flats.

Channel—Sinuous, through shale and sandstone formations, containing deposits of anthracite; bordered by broad alluvial flats in lower course.

Profile—Rate of fall per mile: from source to elevation 600, 4 miles, 320 feet; thence to mouth, 4.5 miles, 17.8 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Mountaintop (961), Ashley (5,601), Wilkes-Barre (67,105).

Industries—Coal mines; agriculture.

Railroads—Pennsylvania, Lehigh Valley, and Central Railroad of New Jersey traverse basin, the latter following stream from Mountaintop to Wilkes-Barre.

Utilization—Main stream, in conjunction with other streams, for water supply at Ashley and South Wilkes-Barre. There are 5 storage reservoirs on main stream and tributaries. Tributaries of main stream, in conjunction with Warrior Creek and Nanticoke Creek, for water supply at Sugar Notch and Warrior Run.

BYRNE RUN

Tributary to West Branch Susquehanna River.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Susquehanna Township, northwestern Cambria County; elevation 1,870.

Course—Southwesterly to West Branch Susquehanna River.

Mouth—At Barnesboro; elevation 1,438.

Length—Three and one-half miles.

Drainage Area—Contains 4.4 square miles in northwestern Cambria County.

Topography—Rough and hilly; valley has some bottom land flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Profile—Rate of fall, from source to mouth, 123.4 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Barnesboro (3,535).
Industries—Coal mines.
Railroads—New York Central & Hudson River traverses basin.
Utilization—Industrial supply by Watkins Coal Co.

CALDWELL CREEK

Tributary to Oil Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—Formed by junction of East and West branches, in Southwest Township, southwestern Warren County.

Course—Southwesterly, through Crawford County, into Venango County; thence northwesterly, returning to Crawford County, to Oil Creek.

Mouth—At Titusville.

Length—Eight and one-half miles.

Drainage Area—Contains 90.6 square miles, embracing portions of Warren, Crawford and Venango counties.

Topography—Broken and hilly; basin lies just southeast of terminal moraine.

Channel—Sinuous, through shale and sandstone formations, containing some oil and gas.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Grand Valley (290), Enterprise (213), East Titusville (182), Titusville (8,533).

Industries—Agriculture; oil; gas.

Railroads—Dunkirk, Allegheny Valley & Pittsburgh traverses basin and follows stream from source to mouth.

CALKINS CREEK

Tributary to Delaware River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—Formed by junction of North and South branches, in Damascus Township, eastern central Wayne County.

Course—Easterly to Delaware River.

Mouth—Near Milanville.

Length—One mile.

Drainage Area—Contains 45.7 square miles in eastern central Wayne County.

Topography—Rough and hilly country, containing lakes and swamps of glacial origin; well wooded.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Lakes—Laurel Lake (51 acres), Boyds Pond (18.3 acres).

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Rutledgedale (27), West Damascus (75), Tyler Hill (180), Boyds Mills (65), Milanville (166).

Industries—Timber; agriculture; ice harvesting; summer resorts.

CAMP RUN

Tributary to Connoquenessing Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Muddy Creek Township, western Butler County; elevation 1,340.

Course—Southwesterly, through Lawrence County, into Beaver County to Connoquenessing Creek.

Mouth—At Fombell; elevation 866.

Length—Nine and one-half miles.

Drainage Area—Contains 14.8 square miles, embracing portions of Butler, Lawrence and Beaver counties.

Topography—Rough and hilly.

Channel—Generally straight, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 1,200 to 1,000, 3 miles, 66.7 feet; thence to mouth, 5.5 miles, 24.4 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Portersville (170), Fombell (31).

Industries—Agriculture.

CANAWACTA CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—Comforts Pond, in Harmony Township, northeastern Susquehanna County.

Course—Northwesterly to North Branch Susquehanna River.

Mouth—At Lanesboro.

Length—Three and one-half miles.

Drainage Area—Contains 11.0 square miles in northeastern Susquehanna County.

Topography—Rugged, hilly country containing lakes and swamps of glacial origin.

Channel—Sinuous, through glacial drift and sandstone formations.

Lakes—Comforts Pond (61.5 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Lanesboro (771).

Industries—Agriculture; machine shop.

Utilization—Main stream, in conjunction with Drinker Creek, for water supply at Lanesboro and Susquehanna. Water power for machine shop at Lanesboro.

CANOE CREEK

Tributary to Frankstown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Catharine Township, eastern Blair County.

Course—Southwesterly to Frankstown Branch Juniata River.

Mouth—At Canoe Creek; elevation 875.

Length—Ten miles.

Drainage Area—Contains 27.6 square miles in eastern Blair County.

Topography—Mountainous; narrow valley flanked with steep, high hills.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Canoe Creek (78).

Industries—Agriculture.

Railroads—Pennsylvania traverses basin and follows stream in lower course.

CANOE CREEK

Tributary to Mahoning Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In North Mahoning Township, northern Indiana County; elevation 1,480.

Course—Northeasterly, by a circuitous route, into Jefferson County to Mahoning Creek.

Mouth—At Cloe; elevation 1,235.

Length—Eight and one-half miles.

Drainage Area—Contains 30.4 square miles in northern Indiana and southern Jefferson counties.

Topography—Broken and hilly; main valley flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations; bordered with narrow alluvial flood plains.

Profile—Rate of fall per mile: from source to elevation 1,300, 4 miles, 45 feet; thence to mouth, 4.5 miles, 14.4 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Covode (163), Cloe (105).

Industries—Coal mines; agriculture.

Pollution—Waste from coal mines.

Railroads—Buffalo & Susquehanna follows stream from headwaters to mouth; Buffalo, Rochester & Pittsburgh and New York Central & Hudson River traverse basin and follow stream in lower course; Pennsylvania traverses basin.

CASSELMAN RIVER

Tributary to Youghiogheny River. Sub-basin: Monongabela.

NATURAL FEATURES

Source—Formed by junction of North and South branches in Garrett County, Maryland, 4 miles south of state boundary; elevation 2,225.

Course—Northeasterly, crossing state boundary at elevation 2,056, into Somerset County to Meyersdale; thence northwesterly to Rockwood; thence southwesterly to Youghiogheny River.

Mouth—At Confluence.

Length—In Pa., 42 miles.

Drainage Area—Total, 576.0 square miles; in Pa., 479.6 square miles in southwestern Somerset and eastern Fayette counties.

Topography—Mountainous and hilly throughout; valleys are not wide and are flanked with steep hills which form gorges in many places; well wooded.

Geology—Shale and sandstone formations, containing rich coal deposits.

Channel—Sinuous, through shale and sandstone beds, being obstructed in many places with large stones eroded from the steep banks.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Confluence, September 1904; discontinued August 1913. At Markleton, August 1913.

Precipitation—Mean annual, 35 to 55 inches.

ARTIFICIAL FEATURES

Towns—Elk Lick (1,000), Meyersdale (3,741), Garrett (848), Berlin (1,336), Rockwood (1,300), Somerset (2,612), Casselman (166), Confluence (890).

Industries—Coal mines; timber; agriculture.

Pollution—Waste from coal mines and pulp mills.

Railroads—Baltimore & Ohio traverses basin and follows stream from state boundary to mouth; Western Maryland traverses basin and follows stream from Meyersdale to mouth.

Utilization—Main stream for industrial and railroad supply at several places. Tributaries for water supply at Meyersdale, Garrett, Rockwood and Markleton. Water power by a few grist mills.

CATAWISSA CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Hazel Township, southern Luzerne County; elevation 1,610.

Course—Southwesterly into Schuylkill County; thence northwesterly to Mainville in Columbia County; thence southwesterly to North Branch Susquehanna River.

Mouth—At Catawissa; elevation 461.

Length—Thirty-six miles.

Drainage Area—Contains 155.4 square miles, embracing portions of Luzerne, Schuylkill and Columbia counties.

Topography—Rolling country between spurs of the Allegheny Mountains; main valley irregular in width and character; a few small ponds and swamps in headwaters.

Channel—Tortuous, through shale and sandstone formations, containing deposits of anthracite in upper basin.

Profile—Rate of fall per mile: from source to elevation 1,100, 5.5 miles, 92.7 feet; thence to mouth, 30.5 miles, 21.0 feet.

Precipitation—Mean annual, 35 to 55 inches.

ARTIFICIAL FEATURES

Towns—Oneida (1,000), Sheppton (750), Zion Grove (172), Ringtown (723), Nuremberg (620), Beaver Valley (250), Mainville (577), Catawissa (1,930).

Industries—Coal mines; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania and Philadelphia & Reading traverse basin and follow stream in lower course; Lehigh Valley traverses basin.

Utilization—Water supply as follows: main stream, at its source, and Boyds Run, a tributary of Cranberry Creek, by Wyoming Valley Water Co. at Hazleton; two small tributaries at Audenried, Tresckow, Honey Brook and McAdoo; Messers Run and Negro Hollow Run at Mahanoy City, in conjunction with Coal Run, a tributary of North Branch Mahanoy Creek; Mud Run at Oneida; Gensel Run at Catawissa; three small tributaries of main stream at Shenandoah; Dresher Run and Whisky Mill Creek for Girard Water Co. Water power by small grist mills.

CATLIN HOLLOW RUN

Tributary to Crooked Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Charleston Township, central Tioga County; elevation 1,720.

Course—Northwesterly to Crooked Creek.

Mouth—At Middlebury Center; elevation 1,143.

Length—Nine miles.

Drainage Area—Contains 28.9 square miles in central Tioga County.

Topography—Rough and hilly; narrow valley flanked with steep hills, being wide in lower course.

Channel—Sinuous, through shale and sandstone formations; 1 mile up from mouth stream flows through wide alluvial flood plain.

Profile—Rate of fall per mile: from source to elevation 1,400, 2.5 miles, 128 feet; thence to mouth, 6.5 miles, 39.5 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Niles Valley (250), Middlebury Center (190).

Industries—Agriculture.

Railroads—New York Central & Hudson River traverses basin and follows stream in lower course.

CEDAR RUN

Tributary to Pine Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Elk Township, southwestern Tioga County.

Course—Southeasterly into Lycoming County to Pine Creek.

Mouth—At Cedar Run.

Length—Eleven miles.

Drainage Area—Contains 45.9 square miles in southwestern Tioga and northwestern Lycoming counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 30 to 40 inches.

ARTIFICIAL FEATURES

Towns—Leetonia (350), Cedar Run (118).

Industries—Timber; tanning; agriculture.

Railroads—Leetonia traverses upper basin.

CHAPPEL FORK

Tributary to Kinzua Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Lafayette Township, western McKean County.

Course—Southwesterly to Kinzua Creek.

Mouth—Near Morrison.

Length—Ten and one-half miles.

Drainage Area—Contains 27.6 square miles in western McKean County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; densely wooded country.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Marshburg (75).

Industries—Timber; agriculture.

Railroads—Pennsylvania follows stream from headwaters to mouth.

CHARTIERS CREEK

Tributary to Ohio River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In South Franklin Township, southern Washington County; elevation 1,300.

Course—Northeasterly into Allegheny County to Ohio River.

Mouth—At McKees Rocks; elevation 703.

Length—Fifty-two miles.

Drainage Area—Contains 278.1 square miles in southwestern Allegheny and northern Washington counties.

Topography—Broken and hilly; valleys eroded in ancient plateau, flanked with hills 300 to 400 feet high, precipitous in places, especially along lower course; main valley is irregular and varies in width from narrow gorges to flats a mile wide.

Geology—Clay and sandstone formations; coal, oil and gas.

Channel—Sinuous, through clay and gravel in upper and middle courses; tortuous through clay and sandstone in lower course; banks vary from gentle slopes to precipitous hills.

Profile—Rate of fall, from elevation 1,100 to mouth, 50 miles, 7.9 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Carnegie, June 1915.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Washington (18,778), Canonsburg (3,891), Carnegie (10,009), McDonald (2,543), Crafton (4,583), Ingram (2,037), McKees Rocks (14,702).

Industries—Extensive coal mining; numerous iron and steel works of Pittsburgh district; oil and gas wells; railroad shops, etc.; agriculture.

Railroads—Pittsburgh, Cincinnati, Chicago & St. Louis traverses basin and follows stream from Washington to mouth; Waynesburg & Washington, Baltimore & Ohio and Wabash Pittsburgh Terminal traverse basin.

Utilization—Pennsylvania Railroad water supply at Houston; industrial supply at Carnegie and Canonsburg; main stream and tributaries for industrial supply at Washington. Tributaries for water supply at Washington, by Pennsylvania Training School at Morganza, and at Canonsburg.

CHARTIERS (LITTLE) CREEK

Tributary to Chartiers Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In South Strabane Township, southern central Washington County, 4 miles southeast of Washington; elevation 1,250.

Course—Southeasterly and northerly to Chartiers Creek.

Mouth—Three miles northeast of Canonsburg; elevation 887.

Length—Seventeen miles.

Drainage Area—Contains 47.5 square miles in northern central Washington County.

Topography—Broken and hilly; main valley irregular and varies from narrow stretches with steep slopes, principally in upper course, to broad flats in middle and lower courses.

Channel—Straight in upper course, becoming tortuous in middle and lower courses; carved in clay and sandstone.

Profile—Rate of fall, from elevation 1,100 to mouth, 15 miles, 14.2 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Eightyfour (60), Wylandville (90), Becks Mills (90).

Industries—Agriculture.

Railroads—Baltimore & Ohio traverses basin and follows stream in middle course.

Utilization—Main stream and Speers Run for water supply at Canonsburg.

CHATHAM RUN

Tributary to West Branch Susquehanna River.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Gallagher Township, middle eastern Clinton County.

Course—Southeasterly to West Branch Susquehanna River.

Mouth—At Chatham Run.

Length—Nine miles.

Drainage Area—Contains 22.0 square miles in middle eastern Clinton County.

Topography—Rough and hilly; narrow valley flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, with limestone at mouth.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Caldwell (24), Chatham Run (70).

Industries—Timber; agriculture.

Utilization—Water supply at Woolrich, Carlton and Avis. Water power for two small mills.

CHEAT RIVER

Tributary to Monongahela River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—Formed by junction of Shavers Fork and Dry Fork, at Parsons, West Virginia; elevation 1,625.

Course—Northwesterly into Fayette County, Pennsylvania, to Monongahela River.

Mouth—At Point Marion; elevation 780.8.

Length—Total, 78 miles; in Pa., 3.5 miles.

Drainage Area—Total, 1,427.0 square miles; in Pa., 98.0 square miles in southern Fayette County.

Topography—Mountainous; valleys flanked with precipitous slopes.

Channel—Sinuous, through shale and sandstone formations; steep banks.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Ices Ferry, 6 miles northeast of Morgantown, W. Va., July 1899. Records are intermittent to November 1908.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Gans (155), Cheat Haven (250), Point Marion (1,389).

Industries—Coal mines; glass works.

Pollution—Waste from coal mines, pulp mills and tanneries on headwaters.

Railroads—Baltimore & Ohio traverses basin and follows stream from Cheat Haven to mouth.

Utilization—Water supply at Point Marion.

CHEMUNG RIVER

Tributary to North Branch Susquehanna River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Tioga and Cohocton rivers at Painted Post, N. Y.

Course—Southeasterly into Bradford County to North Branch Susquehanna River, crossing state boundary three times in 4 miles.

Mouth—Two miles south of Athens.

Length—Total, 44 miles. From source to Waverly, N. Y., 38 miles; thence to mouth, 6 miles.

Drainage Area—Total, 2,520 square miles; in Pa., 831.9 square miles in northeastern Potter, northern Tioga and northwestern Bradford counties.

Topography—Area in Pennsylvania is broken and hilly, rounded by glacial action, to which the whole basin has been subject.

Geology—Shale and sandstone formations, covered in many places by glacial drift, which is deposited irregularly over basin. Coal deposits at head of Tioga River.

Channel—Sinuous, through a broad valley in the glacial drift, carving steep banks in shale and sandstone rocks where stream sweeps close to foot of hills.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Chemung, N. Y., September 1903.

Precipitation—Mean annual, 30 to 40 inches.

ARTIFICIAL FEATURES

Towns—Westfield (1,207), Knoxville (840), Osceola (591), Elkland (1,175), Nelson (448), Blossburg (2,303), Covington (340), Mansfield (1,645), Tioga (533), Lawrenceville (549), South Waverly (1,084), Athens (3,796).

Industries—Coal mines; glass works; tanneries; wood works; chemical works; agriculture; railroad shops; quarries.

Railroads—Erie, New York Central & Hudson River, Buffalo & Susquehanna, Lehigh Valley, Delaware, Lackawanna & Western and Northern Central traverse basin.

Utilization—Tributaries for water supply at Blossburg, Tioga, Mansfield and Lambs Creek.

CHERRY CREEK

Tributary to Delaware River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Hamilton Township, southern Monroe County.

Course—Northeasterly to Delaware River.

Mouth—At Delaware Water Gap; elevation 290.

Length—Fifteen miles.

Drainage Area—Contains 24.0 square miles in southeastern Monroe County.

Topography—Mountainous; narrow main valley between Kittatinny Range on southeast and Godfrey Range on northwest; well wooded on ridges; agricultural land in valley; terminal moraine crosses upper basin.

Channel—Sinuous, through sandstone and limestone formations.

Profile—Rate of fall, from elevation 400 to mouth, 4.5 miles, 24.4 feet per mile.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Bossardsville (160), Stormville (80), Delaware Water Gap (446).

Industries—Agriculture; summer resorts.

Utilization—Caldeno Creek for private water supply at Delaware Water Gap.

CHERRY RUN

Tributary to Crooked Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Plum Creek Township, eastern Armstrong County; elevation 1,260.

Course—Southwesterly to Crooked Creek.

Mouth—At Cochran Mills; elevation 859.

Length—Nine and one-half miles.

Drainage Area—Contains 26.8 square miles in southeastern Armstrong County.

Topography—Hilly; narrow valleys flanked with steep hills, 300 to 400 feet high.

Channel—Sinuous, through shale, sandstone and limestone formations, containing gas and coal.

Profile—Rate of fall, from source to mouth, 42.2 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Whitesburg (81), Brickchurch (47), Cochran Mills (25).

Industries—Gas; coal; agriculture.

CHEST CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—On Cambria-Allegheny township boundary, central Cambria County; elevation 2,000.

Course—Northerly into Clearfield County; thence northwesterly to West Branch Susquehanna River.

Mouth—At Mahaffey; elevation 1,260.

Length—Thirty-six miles.

Drainage Area—Contains 132.2 square miles in northern central Cambria and southwestern Clearfield counties.

Topography—Rugged. hilly country of Allegheny Plateau; upper and lower courses of main stream are in a widening valley, flanked with steep hills; middle course lies in a narrow, gorge-like valley.

Channel—Sinuous, through shale and sandstone formations, containing rich bituminous coal deposits.

Profile—Rate of fall per mile: from elevations 1,900 to 1,800, 2 miles, 50 feet; thence to elevation 1,700, 13 miles, 7.7 feet; thence to elevation 1,400, 4.5 miles, 66.7 feet; thence to mouth, 16 miles, 8.8 feet.

HYDROGRAPHIC FEATURES

Gaging Station—Established at St. Lu, October 1913.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Carrolltown (1,348), Patton (3,907), Hastings (2,125), Westover (569), La Jose (314), Mahaffey (754).

Industries—Agriculture; coal mines.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream from headwaters to mouth; New York Central & Hudson River traverses basin and follows stream from Patton to mouth.

Utilization—Main stream for domestic and railroad supply at Patton; for industrial supply at Mahaffey; for railroad supply at Bradley Junction. Water power for small mills.

CHESTER CREEK

Tributary to Delaware River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—Near Kirkland, West Whiteland Township, Chester County; elevation 540.

Course—Southeasterly into Delaware County to Delaware River.

Mouth—At Chester; tidewater.

Length—Twenty-four and one-half miles.

Drainage Area—Contains 66.6 square miles in southeastern Chester and western Delaware counties.

Topography—Rolling agricultural country in upper basin; becomes hilly with narrow main valley in lower basin.

Channel—Sinuous, through gneiss formation; in a deep, narrow valley for most of its lower course.

Profile—Rate of fall per mile: from source to elevation 200, 12.5 miles, 27.2 feet; thence to elevation 20, 8.5 miles, 21.2 feet; thence 3.5 miles to mouth.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—West Chester (11,767), Glen Mills (278), Concordville (543), Upland (2,221), Chester (38,537).

Industries—Manufacturing and commercial towns, with considerable shipping trade; brick works; pump works.

Railroads—Pennsylvania follows stream from headwaters to mouth; Philadelphia, Baltimore & Washington and Baltimore & Ohio traverse basin.

Utilization—Water supply at West Chester; Philadelphia, Baltimore & Washington Railroad supply at Wawa. Rocky Run for water supply for Glen Mills Schools. Water power for a few small mills.

CHICKIES (BIG) CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Rapho Township, northwestern Lancaster County; elevation 540.

Course—Southwesterly, by a circuitous route, to Susquehanna River.

Mouth—At Chickies; elevation 230.

Length—Twenty-five and one-half miles.

Drainage Area—Contains 127.4 square miles in southern Lebanon and northwestern Lancaster counties.

Topography—Mountainous in headwaters; main basin contains broad agricultural lands.

Channel—Sinuous, through sandstone formations in upper course; tortuous, through limestone in lower course.

Profile—Rate of fall per mile: from source to elevation 400, 6 miles, 23.3 feet; thence to mouth, 19.5 miles, 8.7 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Manheim (2,202), Sporting Hill (260), Landisville (600), Salunga (335), Florin (768), Mt. Joy (2,166), Chickies (317).

Industries—Machine shop; flour mill; manufacturing; agriculture.

Railroads—Philadelphia & Reading traverses basin and follows stream in upper and lower courses; Pennsylvania traverses basin.

Utilization—Main stream for Philadelphia & Reading railroad supply at Manheim. Rife Run for water supply at Manheim. Water power for numerous small mills.

CHICKIES (LITTLE) CREEK

Tributary to Big Chickies Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In South Londonderry Township, southern Lebanon County; elevation 620.

Course—Southerly into Lancaster County to Big Chickies Creek.

Mouth—Two miles northeast of Marietta; elevation 255.

Length—Nineteen miles.

Drainage Area—Contains 45.2 square miles in southern Lebanon and northwestern Lancaster counties.

Topography—Upper basin, broken and hilly; lower basin, broad agricultural lands.

Channel—Sinuous, through sandstone formation in upper basin; tortuous, through limestone in lower basin.

Profile—Rate of fall per mile: from source to elevation 400, 5 miles, 44 feet; thence to mouth, 14 miles, 10.4 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Mastersonville (200), Milton Grove (300), Florin (768), Mt. Joy (2,166).

Industries—Iron novelty works; cotton mills; cigar factories; agriculture.

Railroads—Pennsylvania traverses basin.

Utilization—Water supply at Mt. Joy. Water power for several small mills.

CHILLISQUAQUE CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Madison Township, western Columbia County.

Course—Southwesterly, through Montour County, into Northumberland County to West Branch Susquehanna River.

Mouth—At Chillisquaque; elevation 437.

Length—Twenty-four miles.

Drainage Area—Contains 109.2 square miles, embracing portions of Columbia, Lycoming, Montour and Northumberland counties.

Topography—Rolling agricultural land, bounded on south by Montour Mountain.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Jerseytown (200), White Hall (140), Strawberry Ridge (160), Exchange (225), Washingtonville (183), Potts Grove (184).

Industries—Clay mines; agriculture.

Railroads—Susquehanna, Bloomsburg & Berwick and Philadelphia & Reading traverse basin.

Utilization—Water power for a few small mills.

CHOCONUT CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Choconut Township, northwestern Susquehanna County.

Course—Northerly, by a circuitous route, into New York, to North Branch Susquehanna River.

Mouth—In New York.

Length—In Pa., 8.5 miles.

Drainage Area—In Pa., 29.0 square miles in northwestern Susquehanna County.

Topography—Rugged, hilly country in glaciated region, containing lakes and swamps.

Channel—Sinuous, through glacial drift and sandstone formations.

Lakes—Choconut Lake (35.8 acres), Stanley Pond (29.7 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—St. Joseph (42), Choconut (204).

Industries—Agriculture; summer resort.

CLARION (WEST) CREEK

Tributary to West Branch Clarion River.

Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Hamlin Township, southern central McKean County, near Mt. Jewett.

Course—Southerly into Elk County to West Branch Clarion River.

Mouth—At Wilcox.

Length—Twelve miles.

Drainage Area—Contains 41.7 square miles in southern McKean and northern Elk counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; densely wooded.

Channel—Sinuous, through shale and sandstone formations, containing oil and gas.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Kanesholm (76), Wilcox (1,037).

Industries—Oil; gas; tanneries; paper mills.

CLARION RIVER (INCLUDING EAST BRANCH)

Tributary to Allegheny River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—East Branch formed by junction of Instanter Creek and County Line Run, in Jones Township, northeastern Elk County. Main stream formed by junction of East and West branches at Johnsonburg, Elk County.

Course—Southwesterly, forming boundaries of Elk, Forest and Jefferson counties, into Clarion County, to Allegheny River.

Mouth—Near Parkers Landing; elevation 851.

Length—East Branch, 12 miles; main stream, 95 miles.

Drainage Area—Contains 1,231.6 square miles, embracing portions of McKean, Elk, Jefferson, Forest and Clarion counties. About two-thirds of basin, mostly in upper portion, is thickly wooded, and includes tracts of virgin timber; about one-third of the wooded area has been burned over.

Topography—A dissected plateau of rough character, with streams flowing in narrow steep-sided valleys without bottom lands. Above Clarion the country is especially rough and under forest cover. The southern and western portions are less abrupt and largely devoted to agriculture.

Geology—Shale and sandstone formations predominate the whole basin. Valuable deposits of oil and gas are found, principally in the lower basin, while the coal beds are more widely distributed.

Channel—Tortuous, bordered with steep, rocky banks descending to the water's edge. From mouth to Hallton, offers excellent opportunities for storage on a large scale.

Profile—Rate of fall, from Mill Creek, elevation 1,080, to mouth, 37.5 miles, 6.1 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Clarion, November 1909. Gage heights November 1884.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Johnsonburg (4,334), Wilcox (1,037), St. Marys (6,346), Ridgway (5,408), Brockwayville (1,898), Clarion (2,612), Edenburg (616), Sligo (754), Rimersburg (855).

Industries—Timber; tanneries; quarries; brick works; coal mines; oil and gas wells; glycerine, chemical and glass works; railroad shops; agriculture.

Pollution—Waste from tanneries, glycerine works, chemical works, paper mills, coal mines and oil wells.

Railroads—Pennsylvania and Buffalo, Rochester & Pittsburgh traverse basin and follow stream in upper course; Erie, Pittsburgh, Shawmut & Northern, Tionesta Valley, Elk & Highland, Lake Shore & Michigan Southern, Kane & Elk and Baltimore & Ohio traverse basin.

Utilization—Main stream and East Branch are not used for domestic water supply on account of high pollution, but are used for industrial purposes at several places. Tributaries for water supply at Ridgway, Johnsonburg, St. Marys and Brockwayville. Johnson Run, for water supply by Ketner Water Co., for Buffalo, Rochester & Pittsburgh Railroad. Water power by a few small grist mills. A large power development in the lower basin has been proposed.

CLARION RIVER, WEST BRANCH

Tributary to Clarion River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—Formed by junction of West Clarion Creek and Wilson Run, in Jones Township, northern Elk County.

Course—Southerly to Clarion River.

Mouth—At Johnsonburg.

Length—Six and one-half miles.

Drainage Area—Contains 90.3 square miles in southern McKean and northern Elk counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; partly wooded.

Channel—Sinuous, through shale and sandstone formations, containing coal deposits.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Johnsonburg (4,334), Wilcox (1,037), Rolfe (262).

Industries—Oil; gas; timber; tanneries; paper mills.

Pollution—Waste from tanneries and paper mills.

Railroads—Pennsylvania traverses basin and follows stream from source to mouth.

CLARK CREEK

Tributary to Susquehanna River.
Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Rush Township, northeastern Dauphin County; elevation 820.

Course—Southwesterly to Susquehanna River.

Mouth—Two miles west of Dauphin; elevation 323.

Length—Twenty-eight miles.

Drainage Area—Contains 45.2 square miles in northern central Dauphin and northwestern Lebanon counties.

Topography—Narrow valley flanked by Peters Mountain on northwest and Third and Stony mountains on southeast; well wooded.

Channel—Sinuous, through shale and sandstone formations; rough, rocky beds.

Profile—Rate of fall, from source to mouth, 17.8 feet per mile.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture; timber.

Railroads—Philadelphia & Reading follows stream in upper course.

CLEARFIELD CREEK

Tributary to West Branch Susquehanna River.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Munster Township, eastern Cambria County; elevation 1,960.

Course—Northeasterly into Clearfield County to West Branch Susquehanna River.

Mouth—Near Clearfield.

Length—Sixty-two miles.

Drainage Area—Contains 396.4 square miles in northeastern Cambria and southeastern Clearfield counties.

Topography—Allegheny Plateau region; rough and hilly; narrow valley flanked with steep hills.

Geology—Shale and sandstone formations, containing rich coal deposits.

Channel—Sinuous, over rocky bed and between steep, rugged banks.

Profile—Rate of fall per mile: from source to elevation 1,800, 3 miles, 53.3 feet; thence to elevation 1,400, 20 miles, 20 feet; thence to elevation 1,140, 32 miles, 8.1 feet.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Dimeling, October 1913.

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Loretto (246), Gallitzin (3,504), Ashville (384), Coalport (876), Irvona (800), Glenhope (237), Madera (1,000).

Industries—Machine shops; brick works; coal mines; stone quarries; agriculture.

Pollution—Waste from mines.

Railroads—Pennsylvania traverses basin and follows stream from headwaters to Irvona; New York Central & Hudson River traverses basin and follows stream from Amsbry to mouth.

Utilization—Domestic supply by Wildwood Water Co.; railroad and industrial supply. A small tributary of Bradley Run for water supply at Gallitzin. Water power for small mill at Madera. Ice harvesting near Altoona.

CLEARFIELD (LITTLE) CREEK

Tributary to Clearfield Creek.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Ferguson Township, southwestern Clearfield County; elevation 1,680.

Course—Northeasterly to Clearfield Creek.

Mouth—At Clearfield Bridge; elevation 1,150.

Length—Eighteen miles.

Drainage Area—Contains 45.7 square miles in western central Clearfield County.

Topography—Rugged and hilly country; narrow valleys with alluvial flats, flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Profile—Rate of fall per mile: from source to elevation 1,400, 3.5 miles, 80 feet; thence to mouth, 14.5 miles, 17.2 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Gazzam (241), Kerrmoor (140), New Millport (203), Olanta (212), Oshanter (175), Glen Richey (527).

Industries—Agriculture; coal mines.

Railroads—New York Central & Hudson River traverses basin and follows stream from headwaters to mouth.

CLEAR SHADE CREEK

Tributary to Shade Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Ogle Township, northeastern Somerset County.

Course—Southwesterly to join Dark Shade Creek and form Shade Creek.

Mouth—Two and one-half miles southeast of Ashtola.

Length—Eleven miles.

Drainage Area—Contains 31.4 square miles in northeastern Somerset County.

Topography—Broken and hilly.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Felix (24), Crumb (23).

Industries—Coal; agriculture.

Utilization—Water supply at Seanor, Windber and Scalp Level (Windber Water & Power Co.).

CLOVER CREEK

Tributary to Frankstown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Woodbury Township, northeastern Bedford County; elevation 1,520.

Course—Northeasterly into Blair County to Frankstown Branch Juniata River.

Mouth—Near Cove Forge; elevation 820.

Length—Twenty-two miles.

Drainage Area—Contains 48.3 square miles in northeastern Bedford and southeastern Blair counties.

Topography—Broad, fertile valley, flanked by Tussey Mountain on east.

Channel—Sinuous, through limestone formation.

Profile—Rate of fall, from source to mouth, 31.8 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Henrietta (105), Clovercreek (100), Drab (27).

Industries—Agriculture.

Railroads—Pennsylvania traverses upper basin and follows stream in lower course.

Utilization—Snairs Hollow and a tributary of Frankstown Branch for water supply at Williamsburg. Water power for a few small grist mills.

COCALICO CREEK

Tributary to Conestoga Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Mill Creek Township, eastern Lebanon County; elevation 1,000.

Course—Southerly into Lancaster County; thence southerly, by a circuitous route, to Conestoga Creek.

Mouth—One mile southwest of Brownstown; elevation 281.

Length—Twenty-six miles.

Drainage Area—Contains 141.4 square miles, embracing portions of Berks, Lebanon and Lancaster counties.

Topography—Headwaters in South Mountain; main basin, rolling agricultural country.

Channel—Sinuous, through limestone formation in upper and lower basin; sandstone formation in middle basin.

Profile—Rate of fall per mile: from elevations 500 to 400, 5 miles, 20 feet; thence to mouth, 18.5 miles, 6.4 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Reinholds Station (500), Denver (933), Reamstown (820), Ephrata (3,192), Lincoln (640), Akron (719), Schaefferstown (950), Rothsville (600).

Industries—Silk mills; cigar factories; agriculture.

Railroads—Philadelphia & Reading traverses basin and follows stream in middle course.

Utilization—Philadelphia & Reading railroad supply at Millway. Water power for numerous small mills.

COCOLAMUS CREEK

Tributary to Juniata River. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In West Perry Township, southwestern Snyder County; elevation 1,640.

Course—Southeasterly, through Juniata County, into Perry County to Juniata River.

Mouth—Near Millerstown; elevation 380.

Length—Twenty-one and one-half miles.

Drainage Area—Contains 63.4 square miles, embracing portions of Snyder, Juniata and Perry counties.

Topography—Mountainous; narrow valley, through ridges and around spurs; well wooded.

Channel—Tortuous, through shale, sandstone and limestone formations; bordered by narrow alluvial flood plains in places.

Profile—Rate of fall, from elevation 700 to mouth, 19 miles, 16.8 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Evendale (125), Cocolamus (220), Dimmsville (78).

Industries—Agriculture.

Utilization—Water power by a few small grist mills.

CODORUS CREEK

Tributary to Susquehanna River.
Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—Formed by junction of South Branch and West Branch in York County, 3 miles southwest of York.

Course—Northeasterly through York to Susquehanna River.

Mouth—One and one-half miles southeast of Saginaw; elevation 244.

Length—Fifteen miles.

Drainage Area—Total, 268.0 square miles; in Pa., 267.8 square miles in central York County.

Topography—Open, rolling country of Piedmont Plateau region; broad main valley flanked with rolling hills, narrowing to a gorge in lower 4 miles.

Geology—Limestone valley with sandstone and slate formations in higher areas.

Channel—Sinuous, through broad valley bordered with rich agricultural flatlands; in a gorge for last 4 miles.

Profile—Rate of fall, from elevation 340 to mouth, 6.5 miles, 14.8 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—New Freedom (726), Glen Rock (1,263), Hanover (7,057), Spring Grove (1,152), Dallastown (1,884), York (44,750), North York (1,902), West York (2,435), Springet (368), Emigsville (250).

Industries—Numerous manufacturing plants; slate quarries; agriculture.

Railroads—Northern Central traverses basin and follows stream in upper course; Pennsylvania, Western Maryland and Maryland & Pennsylvania traverse basin.

Utilization—Industrial supply at York; Pennsylvania Railroad water supply at Hanover. Water power by numerous grist mills and other mills.

CODORUS CREEK, EAST BRANCH

Tributary to South Branch Codorus Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Hopewell Township, southern York County; elevation 880.

Course—Northwesterly to South Branch Codorus Creek.

Mouth—Four miles south of York; elevation 400.

Length—Sixteen and one-half miles.

Drainage Area—Contains 44.6 square miles in southern York County.

Topography—Broken and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through gneiss and slate formations bordered with narrow alluvial flood plains.

Profile—Rate of fall, from source to mouth, 29.1 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Winterstown (238), Hartley (231), Jacobus (550), Loganville (298).

Industries—Agriculture; small manufacturing plants.

Utilization—Water power for a few small mills.

CODORUS CREEK, SOUTH BRANCH

Tributary to Codorus Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Shrewsbury Township, southern York County, near Pennsylvania-Maryland boundary; elevation 820.

Course—Northerly to join West Branch and form Codorus Creek.

Mouth—Three miles southwest of York.

Length—Nineteen miles.

Drainage Area—Contains 116.8 square miles in southern York County.

Topography—Broken and hilly; narrow main valley flanked with steep hills.

Channel—Sinuous, through gneiss and slate formations; bordered with narrow alluvial flood plains at foot of steep slopes.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—New Freedom (726), Shrewsbury (598), Glen Rock (1,263), Codorus (550), Seven Valleys (365), Jacobus (550).

Industries—Slate quarries; small manufacturing plants; agriculture.

Railroads—Northern Central follows stream from headwaters to mouth; Western Maryland traverses basin.

Utilization—Water supply at York. Water power by numerous grist mills.

CODORUS CREEK, WEST BRANCH

Tributary to Codorus Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—At Bandanna, West Manheim Township, southwestern York County; elevation 880.

Course—Northeasterly to join South Branch and form Codorus Creek.

Mouth—Three miles southwest of York.

Length—Twenty-three and one-half miles.

Drainage Area—Total, 90.6 square miles; in Pa., 90.4 square miles in southwestern York County.

Topography—Broken and hilly; valleys flanked with rolling agricultural country.

Channel—Sinuous, through slate and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Hanover (7,057), Glenville (340), Brodbecks (300), Porters Sideling (110), Menges Mills (159), Spring Grove (1,152), Nashville (162).

Industries—Manufacturing plants; agriculture.

Railroads—Pennsylvania traverses basin and follows stream in lower course; Western Maryland traverses basin and follows stream in middle course.

Utilization—Water supply at Spring Grove. Tributaries for water supply at Hanover and McSherrystown. Main stream has numerous water power developments by small mills.

COLD STREAM

Tributary to Moshannon Creek.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Rush Township, southwestern Center County.

Course—Northwesterly to Moshannon Creek.

Mouth—At Philipsburg.

Length—Nine and one-half miles.

Drainage Area—Contains 23.6 square miles in southwestern Center County.

Topography—Rough, hilly country; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Philipsburg (3,585).

Industries—Coal mines; agriculture.

Pollution—Waste from coal mines.

Utilization—Water supply at Philipsburg, South Philipsburg and Chester Hill.

COLE CREEK

Tributary to Potato Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—Formed by junction of North and South branches, in Keating Township, eastern central McKean County.

Course—Easterly to Potato Creek.

Mouth—At Farmers Valley.

Length—Two miles.

Drainage Area—Contains 41.5 square miles in eastern central McKean County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Coleville (104), Farmers Valley (110).

Industries—Timber; agriculture.

Railroads—Mount Jewett, Kinzua & Riterville traverses basin and follows stream from source to mouth.

COLE CREEK, SOUTH BRANCH

Tributary to Cole Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Keating Township, central McKean County.

Course—Northeasterly to Cole Creek.

Mouth—One and one-half miles west of Farmers Valley.

Length—Seven and one-half miles.

Drainage Area—Contains 27.8 square miles in central McKean County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

Railroads—Mount Jewett, Kinzua & Riterville follows stream from headwaters to mouth.

CONEMAUGH RIVER

For description see Kiskiminitas River.

CONEMAUGH (LITTLE) RIVER

Tributary to Conemaugh River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Cresson Township, eastern Cambria County; elevation 2,480.

Course—Southwesterly to join Stony Creek and form Conemaugh River.

Mouth—At Johnstown; elevation 1,150.

Length—Thirty-one and one-half miles.

Drainage Area—Contains 187.9 square miles in southern Cambria County.

Topography—Broken and hilly; in upper basin main valley is eroded in the rolling plateau; from junction of South Fork to mouth valley becomes narrow and flanked with steep hills, 700 to 800 feet high.

Channel—Sinuous in upper basin, through shale and sandstone beds and alluvial flood plains; tortuous from junction of South Fork to mouth, and in a gorge-like valley, bordered with narrow flats in places; rich coal deposits and some limestone.

Profile—Rate of fall per mile: from elevations 2,000 to 1,600, 7 miles, 57.1 feet; thence to Ehrenfeld, elevation 1,500, 8 miles, 12.5 feet; thence to mouth, 14 miles, 25 feet.

Floods—The disastrous flood at Johnstown in May 1889 was caused in part by the breaking of dam on South Fork Little Conemaugh River.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Cresson (1,470), Lilly (1,638), Portage (2,954), Ebensburg (1,978), South Fork (4,592), East Conemaugh (5,046), Franklin (2,102), Johnstown (55,482).

Industries—Extensive coal mines; railroad towns; Cambria Steel Plant at Johnstown and Franklin.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream from headwaters to mouth.

Utilization—Main stream for industrial supply at Johnstown, by Cambria Steel Co. Bear Rock Run, Bens Creek, Trout Run, North Branch, South Fork, Saltlick Run and Clapboard Run for industrial and domestic supply by towns, Cambria Steel Co., and Pennsylvania Railroad Co. The old Pennsylvania Canal followed stream from the western terminal of Old Portage Railroad to mouth. Water power for a few small mills.

CONEMAUGH (LITTLE) RIVER, NORTH BRANCH

Tributary to Little Conemaugh River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Allegheny Township, central Cambria County; elevation 1,980.

Course—Southwesterly to Little Conemaugh River.

Mouth—At Wilmore; elevation 1,539.

Length—Ten and one-half miles.

Drainage Area—Contains 31.7 square miles in southern central Cambria County.

Topography—Broken and hilly; valley eroded in the rolling plateau, flanked with steep hills, 300 to 400 feet high.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall, from elevation 1,800 to mouth, 10 miles, 26.1 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Ebensburg (1,978), Wilmore (314).

Industries—Agriculture.

Railroads—Pennsylvania traverses upper basin.

Utilization—Water supply by Pennsylvania Railroad (Summit Water Supply Co.).

CONEMAUGH (LITTLE) RIVER, SOUTH FORK

Tributary to Little Conemaugh River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Adams Township, southeastern Cambria County; elevation 2,680.

Course—Northwesterly to Little Conemaugh River.

Mouth—At South Fork; elevation 1,470.

Length—Fifteen miles.

Drainage Area—Contains 61.7 square miles in southern Cambria County.

Topography—Broken and hilly; main valley eroded in rolling plateau, bordered with steep hills, 300 to 400 feet high, in lower basin.

Channel—Sinuous, through shale and sandstone formations; bordered with steep banks in upper and lower basins; through broad alluvial flats in middle basin, in which was located the South Fork Reservoir.

Profile—Rate of fall per mile: from source to elevation 1,600, 10.5 miles, 102.9 feet; thence to mouth, 4.5 miles, 28.9 feet.

Floods—The disastrous flood at Johnstown in May 1889 was caused by failure of dam at South Fork Reservoir, 5 miles above mouth.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Dunlo (1,200), South Fork (4,592).

Industries—Extensive coal mines.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream from Lloydell to mouth.

Utilization—Private water supply at Lloydell. Main stream and Beaverdam Run for water supply by Pennsylvania Railroad (Summit Water Supply Co.). Sandy Run for water supply at South Fork.

CONESTOGA CREEK

Tributary to Susquehanna River.
Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Caernarvon Township, southern Berks County; elevation 930.

Course—Southeasterly to Morgantown; thence southwesterly into Lancaster County to Susquehanna River.

Mouth—At Safe Harbor; elevation 168.

Length—Sixty-one miles.

Drainage Area—Contains 474.8 square miles, embracing portions of Berks, Lebanon, Chester and Lancaster counties.

Topography—Rolling agricultural land, being fertile and extensively cultivated; main valley becomes narrow below Lancaster.

Geology—Extensive limestone formations throughout greater portion of basin; sandstone formation in headwaters.

Channel—Sinuous in upper course; tortuous below junction of Cocalico Creek.

Profile—Rate of fall per mile: from source to elevation 500, 5.5 miles, 78.2 feet; thence to elevation 400, 7.5 miles, 13.3 feet; thence to elevation 300, 14 miles, 7.1 feet; thence to mouth, 34 miles, 3.9 feet.

Springs—Numerous limestone and mineral springs.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Terre Hill (882), Ephrata (3,192), Schaefferstown (950), New Holland (1,106), Brownstown (750), Lititz (2,082), Lancaster (47,227), Millersville (1,241), Conestoga (548).

Industries—Cigar factories; silk mills; machine shops; agriculture.

Railroads—Pennsylvania and Philadelphia & Reading traverse basin.

Utilization—Water supply at Lancaster; Pennsylvania Railroad water supply at Lancaster. Water power by five hydroelectric plants and numerous small grist mills.

CONESTOGA (LITTLE) CREEK

Tributary to Conestoga Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Penn Township, northwestern Lancaster County, near Manheim; elevation 460.

Course—Southerly to Conestoga Creek.

Mouth—One and one-half miles northeast of Safe Harbor; elevation 184.

Length—Twenty miles.

Drainage Area—Contains 64.1 square miles in western central Lancaster County.

Topography—Rolling agricultural country; main valley narrows somewhat in lower course.

Channel—Sinuous, through extensive limestone formation.

Profile—Rate of fall per mile: from elevations 400 to 300, 7 miles, 14.3 feet; thence to mouth, 12.5 miles, 9.3 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—East Petersburg (700), Rohrerstown (513), Lancaster (47,227), Millersville (1,241).

Industries—Cigar factories; agriculture.

Railroads—Pennsylvania and Philadelphia & Reading traverse basin.

Utilization—Water power for a few small mills.

CONEWAGO CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In West Cornwall Township, southern Lebanon County, near Mt. Gretna; elevation 710.

Course—Southwesterly to Susquehanna River, forming Dauphin-Lancaster county boundary for last 11.5 miles.

Mouth—At Falmouth; elevation 261.

Length—Twenty and one-half miles.

Drainage Area—Contains 52.0 square miles, embracing portions of Lebanon, Dauphin and Lancaster counties.

Topography—Rolling agricultural lands; broad main valley flanked with gently sloping hills.

Channel—Sinuous in upper course, and tortuous in lower course; through sandstone formations containing intrusions of trap rock; bordered with broad alluvial flatlands.

Profile—Rate of fall per mile: from source to elevation 500, 3.5 miles, 60 feet; thence to elevation 400, 8.5 miles, 11.8 feet; thence to mouth, 8.5 miles, 16.4 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Mt. Gretna (100), Colebrook (130), Lawn (204), Bellaire (160), Deodate (168), Falmouth (221).

Industries—Quarries; agriculture.

Railroads—Cornwall & Lebanon follows stream from source to Conewago; Pennsylvania traverses basin.

CONEWAGO CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In South Mountain, Franklin Township, northwestern Adams County; elevation 1,560.

Course—Easterly into York County; thence northeasterly to Susquehanna River.

Mouth—At Yorkhaven; elevation 259.

Length—Seventy-six and one-half miles.

Drainage Area—Total, 510.8 square miles; in Pa., 505.6 square miles, embracing portions of Cumberland, York and Adams counties.

Topography—Headwaters in South Mountain, from which main stream flows through the Narrows into a broad, rolling agricultural country; in lower course main valley becomes narrow, flanked with steep hills.

Geology—Shale and sandstone formations, containing intrusions of trap rock.

Channel—Sinuous in upper course, becoming tortuous through alluvial flood plains at foot of steep slope in lower course.

Profile—Rate of fall per mile: from elevation 1,200 to Bridgeport, elevation 700, 6.5 miles, 76.9 feet; thence to elevation 600, 3.5 miles, 28.6 feet; thence to elevation 400, 24.5 miles, 8.2 feet; thence to mouth, 41 miles, 3.4 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Arendtsville (383), Biglerville (386), McSherrystown (1,724), New Oxford (838), East Berlin (672), Dover (576), Manchester (547), Yorkhaven (793).

Industries—Agriculture; slate quarries.

Railroads—Pennsylvania, Philadelphia & Reading, Western Maryland and East Berlin traverse basin.

Utilization—Small tributary for water supply at Arendtsville; South Branch for auxiliary supply at Hanover and McSherrystown, and for water supply at New Oxford. A number of grist mills and various other mills utilize the water for generating power.

CONEWAGO CREEK, SOUTH BRANCH

Tributary to Conewago Creek. Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Carroll County, Md.; elevation 1,010.

Course—Northwesterly, through York County, into Adams County to Conewago Creek, crossing state boundary at elevation 747.

Mouth—One and one-half miles southeast of New Chester; elevation 436.

Length—Total, 22 miles; in Pa., 19.5 miles.

Drainage Area—Total, 74.9 square miles; in Pa., 69.7 square miles in southwestern York and southeastern Adams counties.

Topography—Broken and hilly in headwaters; main basin is broad, rolling agricultural country of Piedmont Plateau region.

Channel—Sinuous, through slate, limestone and sandstone formations, containing some iron ore.

Profile—Rate of fall, from elevation 700 to mouth, 19 miles, 13.9 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—McSherrystown (1,724), Centennial (300), Irishtown (103), New Oxford (838).

Industries—Slate quarries; agriculture; shoe factories; cigar factories.

Railroads—Pennsylvania, Western Maryland and East Berlin traverse basin.

Utilization—Auxiliary water supply for McSherrystown and Hanover; water supply at New Oxford. Water power by a few grist mills.

CONEWAGO (LITTLE) CREEK (or PARADISE CREEK)

Tributary to Conewago Creek. Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Jackson Township, southwestern York County.

Course—Northeasterly to Conewago Creek.

Mouth—Two miles north of Manchester; elevation 265.

Length—Twenty-three and one-half miles.

Drainage Area—Contains 60.9 square miles in central York County.

Topography—Rolling agricultural country; main valley narrows in lower 3 miles and hills become steep.

Channel—Sinuous, through red shale and sandstone formations.

Profile—Rate of fall, from elevation 360 to mouth, 10.5 miles, 9.0 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—La Bott (153), Dover (576), Zions View (150).

Industries—Agriculture.

Utilization—Water power by a few small grist mills.

CONEWANGO CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Chautauqua County, southwestern New York.

Course—Southerly, crossing state boundary into Warren County, to Allegheny River.

Mouth—At Warren; elevation 1,174.

Length—In Pa., 13.5 miles.

Drainage Area—Total, 898.0 square miles; in Pa., 137.0 square miles in northern Warren County.

Topography—Rough and hilly; main valley is wide, containing flatlands and some swamps, flanked with steep hills. Chautauqua Lake, which is larger than any lake in Pennsylvania, feeds into this stream through Cassadaga Creek.

Channel—Sinuous, through shale and limestone formations, containing oil; wide alluvial flood plains, containing sand and gravel banks.

Profile—Rate of fall, from state boundary, elevation 1,226, to mouth, 3.9 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established 1 mile above Frewsburg, N. Y., October 1909.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Sugargrove (459), Russell (700), North Warren (503), Warren (11,080).

Industries—Extensive oil and gas fields; sand and gravel quarries; coal; oil refineries; machine shops and boiler works; agriculture.

Pollution—Waste from oil and gas wells.

Railroads—Dunkirk, Allegheny Valley & Pittsburgh follows stream from state boundary to mouth.

Utilization—Private water supply at North Warren. Water power at Warren.

CONNEAUT CREEK

Tributary to Lake Erie. Basin: Erie.

NATURAL FEATURES

Source—In Summit Township, western Crawford County; elevation 1,195.

Course—Northerly into Erie County to a point 2 miles north of Albion; thence southwesterly into Ohio to Kingsville; thence northeasterly to Lake Erie.

Mouth—At Conneaut, Ohio; elevation 573.

Length—In Pa., 35.5 miles.

Drainage Area—In Pa., 154.0 square miles in northwestern Crawford and southwestern Erie counties.

Topography—Rolling hills and series of terraces from divide to Lake Erie; valleys cut in glacial drift and alluvial deposits.

Channel—Tortuous, through clay, shale and sandstone, containing gas; banks have gentle slopes.

Profile—Rate of fall per mile: from source to elevation 900, 11 miles, 26.8 feet; thence to state boundary, elevation 782, 24.5 miles, 4.8 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Conneautville (867), Springboro (614), Albion (1,534).

Industries—Agriculture; fruit growing; stone quarries.

Railroads—Bessemer & Lake Erie traverses basin and follows stream from headwaters to Lexington; Pennsylvania Lines West of Pittsburgh traverse basin and follow stream in middle course.

Utilization—Auxiliary and Bessemer & Lake Erie railroad water supply at Conneautville. Water power near Albion.

CONNEAUT CREEK, WEST BRANCH

Tributary to Conneaut Creek. Basin: Erie.

NATURAL FEATURES

Source—In Beaver Township, northwestern Crawford County; elevation 1,130.

Course—Northeasterly into Erie County to Tracy; thence easterly to Conneaut Creek.

Mouth—Near Keepville; elevation 839.

Length—Thirteen and one-half miles.

Drainage Area—Total, 33.4 square miles; in Pa., 32.4 square miles in southwestern Erie and northwestern Crawford counties.

Topography—Gently sloping area traversed by streams carved in clay and shale; banks have gentle slopes.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall, from source to mouth, 21.6 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Beaver Center (115), Tracy (37).

Industries—Agriculture; fruit growing.

CONNEAUT LAKE CREEK

Tributary to French Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—Conneaut Lake, in Sadsbury Township, southwestern Crawford County; elevation 1,072.

Course—Southeasterly to French Creek.

Mouth—Four miles northwest of Cochranton.

Length—Thirteen and one-half miles.

Drainage Area—Contains 99.6 square miles in southwestern Crawford County.

Topography—Rolling agricultural lands; basin within glaciated region and contains many swamps, marshes and lakes. Conneaut Lake, the largest body of water within the state, has an area of 928.5 acres.

Channel—Tortuous, through swamps and marshes in deep glacial deposits.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Exposition (320), Harmonsburg (280), Conneaut Lake (725), Geneva (236).

Industries—Agriculture.

Railroads—Bessemer & Lake Erie traverses basin and follows stream in upper course; Erie traverses basin.

Utilization—Water power by a few small mills.

CONNEAUTTE CREEK

Tributary to French Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In McKean Township, central Erie County.

Course—Southwesterly and southeasterly, through Conneautte Lake, into Crawford County to French Creek.

Mouth—One mile northwest of Cambridge Springs.

Length—Fourteen and one-half miles.

Drainage Area—Contains 59.7 square miles in southern Erie and northern Crawford counties.

Topography—Rolling agricultural land with wide valleys; basin within the glaciated region, containing lakes and swamps.

Channel—Tortuous, through shale and glacial drift.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—McLane (98), Edinboro (666), McLallen Corners (96), Drakes Mills (57).

Industries—Agriculture.

Utilization—Water power at Drakes Mills.

CONNOQUENESSING CREEK

Tributary to Beaver River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Concord Township, northern central Butler County; elevation 1,300.

Course—Southwesterly to Renfrew; thence westerly into Beaver County; thence northwesterly into Lawrence County to Beaver River.

Mouth—One mile west of Ellwood City.

Length—Fifty-nine miles.

Drainage Area—Contains 832.7 square miles, embracing portions of Mercer, Venango, Butler, Allegheny, Beaver and Lawrence counties.

Topography—Broken and hilly, lying in western plateau region and largely outside of the glaciated area. Main and tributary valleys vary from narrow and steep gorges to broad and flat lowlands. Main valley is flanked with steep hills 200 to 400 feet high; from Butler to Harmony, relatively narrow; thence to Frisco, broad, rich agricultural bottom lands. In a gorge for the lower 6 miles of its course.

Geology—Principally sandstone and shale formations, with a little limestone in the drainage area of Slippery Rock Creek. Oil, gas, and some coal are found.

Channel—From Butler to mouth, generally tortuous; along lower course carved in sandstone and conglomerate rocks.

Profile—Rate of fall, from elevation 1,100 to junction of Slippery Rock Creek, elevation 817, 51 miles, 5.5 feet per mile.

Lakes—A few small and unimportant lakes and ponds, and numerous swamps, mostly on Slippery Rock Creek; many small springs in headwaters.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Hazen, June 1915.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Butler (20,728), Evans City (1,339), Zelienople (1,388), Ellwood City (3,902), Grove City (3,674), Slippery Rock (870).

Industries—Principally iron and steel at Butler, Zelienople and Ellwood City; extensive agriculture.

Railroads—Baltimore & Ohio and Buffalo, Rochester & Pittsburgh traverse basin and follow stream from Butler to mouth; Bessemer & Lake Erie traverses basin and follows stream from Oneida to Renfrew; Pennsylvania and Western Allegheny traverse basin.

Utilization—Main stream and tributaries for domestic and industrial supply at Butler, Zelienople and Ellwood City. Water power developed at Ellwood City and at many small grist mills. An extensive power development of the main stream and Slippery Rock Creek has been proposed.

CONNOQUENESSING (LITTLE) CREEK

Tributary to Connoquenessing Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Center Township, central Butler County; elevation 1,330.

Course—Southwesterly to Connoquenessing Creek.

Mouth—Near Harmony; elevation 899.

Length—Eighteen miles.

Drainage Area—Contains 63.6 square miles in western Butler County.

Topography—Upper tributaries in a rolling country; lower valley flanked with steep hills 300 feet high, broadening as it approaches mouth.

Channel—Sinuous, through clay and sandstone formations.

Profile—Rate of fall per mile: from elevations 1,200 to 1,000, 6 miles, 33.3 feet; thence to mouth, 11 miles, 9.2 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Mt. Chestnut (71), Connoquenessing (400), Prospect (346), Whitestown (112).

Industries—Agriculture.

CONOCOCHEAGUE CREEK

Tributary to Potomac River. Basin: Potomac.

NATURAL FEATURES

Source—In Menallen Township, northwestern Adams County; elevation 1,465.

Course—Westerly, by a circuitous route, to Chambersburg; thence southwesterly to junction of Back Creek at Williamson; thence southerly, into Maryland, to Potomac River.

Mouth—At Williamsport, Md.; elevation 333.

Length—In Pa., 56 miles.

Drainage Area—In Pa., 499.1 square miles, embracing portions of Cumberland, Adams and Franklin counties.

Topography—Mountainous in headwaters; basin lies in fertile Cumberland Valley.

Geology—Principally limestone formation with shale and sandstone in the higher regions. Main stream receives most of its tributaries from the west, the territory east of it and north and south of the westerly course being a limestone region, in which only a few streams find their way to the creek. It receives probably a large ground flow from this territory, and the water, on account of its hardness, is ill-suited for domestic and industrial use.

Channel—Tortuous, through shale and limestone; bordered by broad flats in upper basin, banks gradually increasing in height and steepness on the downward course.

Profile—Rate of fall per mile: from source to Fayetteville, elevation 800, 9.5 miles, 70 feet; thence to elevation 600, 11.5 miles, 17.4 feet; thence to state boundary, elevation 401, 35 miles, 5.7 feet.

Springs—There are many springs in the limestone formation, some of which find their way to the surface, forming small tributaries, while others flow underground to main streams.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Fayetteville (700), Chambersburg (11,800), Greencastle (1,919), Mercersburg (1,410).

Industries—Agriculture; limestone quarries; textile, shoe and clock factories; plaster and cement stone manufacturing; iron and machine works.

Railroads—Cumberland Valley traverses basin and follows stream in middle course; Western Maryland traverses basin.

Utilization—Birch Run for water supply at Chambersburg, main stream being used for auxiliary supply; Cold Spring Run for water supply at Fayetteville; Trout Run, a small tributary of West Branch, for water supply at Mercersburg. Considerable water power is generated on Conococheague Creek and its tributaries by small mills.

CONOCOCHEAGUE CREEK, WEST BRANCH

Tributary to Conococheague Creek. Basin: Potomac.

NATURAL FEATURES

Source—In Fannett Township, northern Franklin County.

Course—Southwesterly to Richmond Furnace; thence southeasterly to Conococheague Creek.

Mouth—Four miles southwest of Greencastle; elevation 416.

Length—Fifty-three miles.

Drainage Area—Total, 197.4 square miles; in Pa., 197.0 square miles in western Franklin County.

Topography—Mountainous in headwaters and upper basin; lower basin lies in broad, fertile Cumberland Valley.

Channel—Sinuous, through shale and limestone formations.

Profile—Rate of fall, from elevation 660 to mouth, 27 miles, 9.0 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Ambersons Valley (312), Fannettsburg (330), Fort Louden (335), Lemasters (350), Mercersburg (1,410).

Industries—Agriculture; timber.

Railroads—Cumberland Valley traverses basin and follows stream from Richmond Furnace to Mercersburg.

Utilization—Trout Run for water supply at Mercersburg. Water power for many small mills.

CONODOGUINET CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Peters Township, western Franklin County; elevation 1,840.

Course—Northeasterly into Cumberland County to Susquehanna River.

Mouth—At West Fairview, opposite Harrisburg; elevation 299.

Length—Ninety-nine miles.

Drainage Area—Contains 483.5 square miles in northern Franklin and northern Cumberland counties.

Topography—Basin lies within broad, fertile Cumberland Valley, between Blue Mountain on north and South Mountain on south; well wooded in upper basin.

Geology—Shale and extensive limestone formations, containing iron ore deposits.

Channel—Tortuous, through fertile bottom lands; through a small gorge for last 5 miles.

Profile—Rate of fall per mile: from elevations 420 to 400, 4.5 miles, 4.4 feet; thence to mouth, 36.5 miles, 2.8 feet.

Springs—Many limestone springs make the dry season flow of this stream strong.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Bryson's Bridge, September 1911.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Upper Strasburg (326), Roxbury (310), Orrstown (247), Shippensburg (3,457), Newburg (264), Newville (1,449), Carlisle (10,303), New Kingstown (400), Mechanicsburg (4,469), Hogestown (170), West Fairview (1,137).

Industries—Agriculture; timber; lumber mills; overall factories; shirt factories; quarries.

Railroads—Cumberland Valley, Western Maryland and Philadelphia & Reading traverse basin.

Utilization—Water supply at Carlisle. Tributary for water supply at Shippensburg. Water power by many grist mills, pumping plants, and a few small hydroelectric plants.

CONOWINGO CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Providence Township, southern Lancaster County; elevation 800.

Course—Southerly into Maryland to Susquehanna River, crossing state boundary southeast of Pleasant Grove.

Mouth—At Conowingo, Md.; elevation 50.

Length—In Pa., 15 miles.

Drainage Area—Total, 38.6 square miles; in Pa., 33.6 square miles in southern Lancaster County.

Topography—Rolling agricultural country; broad main valley flanked with rolling hills.

Channel—Sinuous, through slate and serpentine formations.

Profile—Rate of fall per mile: from source to elevation 500, 3 miles, 100 feet; thence to state boundary, elevation 245, 12 miles, 21.2 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Fulton House (140), Goshen (136), Wakefield (250), Lyles (149).

Industries—Agriculture.

Railroads—Lancaster, Oxford & Southern traverses basin.

Utilization—Water power by a few small grist mills.

CONOY CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Mount Joy Township, northwestern Lancaster County; elevation 520.

Course—Southwesterly through Elizabethtown to Susquehanna River.

Mouth—One mile southeast of Bainbridge; elevation 248.

Length—Ten and one-half miles.

Drainage Area—Contains 18.8 square miles in northwestern Lancaster County.

Topography—Rolling agricultural lands; broad main valley.

Channel—Sinuous, through sandstone formation, containing intrusions of trap rock.

Profile—Rate of fall, from source to mouth, 25.9 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Elizabethtown (2,587), Bainbridge (700).

Industries—Shoe, implement, shirt and cigar factories; agriculture.

Railroads—Pennsylvania traverses basin.

Utilization—Headwaters for water supply at Elizabethtown. Water power for several small mills.

COOL SPRING CREEK

Tributary to Neshannock Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Fairview Township, northern central Mercer County; elevation 1,350.

Course—Southerly to junction of Yellow Creek; thence southwesterly to Neshannock Creek.

Mouth—At Mercer; elevation 1,085.

Length—Twelve miles.

Drainage Area—Contains 52.1 square miles in eastern central Mercer County.

Topography—Rolling hills and wide valleys; swamps on tributaries.

Channel—Winding, through glacial drift.

Profile—Rate of fall per mile: from source to elevation 1,200, 3.5 miles, 42.9 feet; thence to mouth, 8.5 miles, 13.5 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Jackson Center (269), Pardoe (411), Mercer (2,026).

Industries—Agriculture; coal mines.

Railroads—Pennsylvania Lines West of Pittsburgh traverse basin and follow stream in lower course; Bessemer & Lake Erie traverses basin.

COON CREEK

Tributary to Tionesta Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Jenks Township, southern Forest County.

Course—Westerly to Tionesta Creek.

Mouth—Opposite Nebraska.

Length—Twelve and one-half miles.

Drainage Area—Contains 41.1 square miles in southern Forest and northeastern Clarion counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Gilfoyle (66), Newmansville (71).

Industries—Timber; agriculture.

COVE CREEK

Tributary to Raystown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Colerain Township, southern central Bedford County.

Course—Northeasterly to Raystown Branch Juniata River.

Mouth—Near Lutzville; elevation 1,012.

Length—Seventeen miles.

Drainage Area—Contains 48.5 square miles in southern central Bedford County.

Topography—Broad basin lying between two parallel ridges; well wooded on the steep slopes; main valley has rich agricultural land.

Channel—Sinuous, through limestone formation.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Rainsburg (203), Beegleton (30), Koontzville (48), Charlesville (110), Otttown (24).

Industries—Agriculture.

Utilization—Mountain Run for water supply at Rainsburg. Water power for a small grist mill.

COVE CREEK

Tributary to Licking Creek. Basin: Potomac.

NATURAL FEATURES

Source—In Todd Township, eastern Fulton County; elevation 1,160.

Course—Southwesterly to Licking Creek.

Mouth—Opposite Dickeys Mountain.

Length—Sixteen miles.

Drainage Area—Contains 57.7 square miles in eastern Fulton County.

Topography—Mountainous; main valley wide at McConnellsburg and for several miles below, flanked on the east by Tuscarora and Cove mountains.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—McConnellsburg (579), Webster Mills (140), Big Cove Tannery (85).

Industries—Agriculture; timber.

Utilization—Small tributary for water supply at McConnellsburg. Water power for a few small mills.

COVE (LITTLE) CREEK

Tributary to Licking Creek. Basin: Potomac.

NATURAL FEATURES

Source—In Warren Township, southwestern Franklin County; elevation 1,240.

Course—Southwesterly to Licking Creek.

Mouth—Just north of Pennsylvania-Maryland boundary; elevation 449.

Length—Twelve miles.

Drainage Area—In Pa., 27.8 square miles in southwestern Franklin County.

Topography—Mountainous; main valley lies between parallel ridges of Tuscarora and Cove mountains, the slopes being gentle near stream, increasing in steepness as they rise.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 1,100 to 700, 3 miles, 133.3 feet; thence to mouth, 8.5 miles, 29.5 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sylvan (190).

Industries—Agriculture; timber.

COWANESQUE RIVER

Tributary to Tioga River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Bingham Township, northeastern Potter County; elevation 2,140.

Course—Southeasterly into Tioga County; thence northeasterly into New York to Tioga River.

Mouth—In New York.

Length—In Pa., 40 miles.

Drainage Area—In Pa., 219.9 square miles in northeastern Potter and northwestern Tioga counties.

Topography—Broken and hilly; wide, flat valley flanked with steep hills.

Geology—Shale and sandstone formations; deposits of boulders and gravel from glacial action.

Channel—Sinuous, through alluvial flood plains containing gravel and boulders from glacial drift.

Profile—Rate of fall per mile: from source to elevation 1,700, 4 miles, 110 feet; thence to elevation 1,300, 11 miles, 36.4 feet; thence to elevation 1,000, 23 miles, 13.0 feet; thence 2 miles to state boundary.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Westfield (1,207), Knoxville (840), Osceola (591), Elkland (1,175), Nelson (448), Lawrenceville (549).

Industries—Quarries; tanneries; wood works.

Railroads—New York Central & Hudson River follows stream from source to Lawrenceville; Buffalo & Susquehanna traverses basin and follows stream from Westfield to Nelson.

Utilization—Industrial supply at Elkland and Westfield. Mill Creek for industrial supply at Westfield. Water power for a few small mills.

COWANSHANNOCK CREEK

Tributary to Allegheny River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In South Mahoning Township, northwestern Indiana County; elevation 1,410.

Course—Westerly into Armstrong County to Allegheny River.

Mouth—At Gosford, 2 miles north of Kittanning; elevation 773.

Length—Twenty-four miles.

Drainage Area—Contains 62.8 square miles in northwestern Indiana and eastern Armstrong counties.

Topography—Broken and hilly; main valley has wide flats, principally in middle course, and is flanked with steep hills, 400 to 500 feet high, in lower course.

Channel—Sinuous, through shale, sandstone and limestone formations, containing bituminous coal deposits and gas; through alluvial flats 0.5 mile wide in places, narrowing between steep hills, principally in lower course.

Profile—Rate of fall per mile: from elevations 1,200 to 900, 19.5 miles, 15.4 feet; thence to mouth, 2.5 miles, 50.8 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Rural Valley (763), Blanco (60).

Industries—Coal mines; coke ovens; gas; agriculture.

Pollution—Waste from coal mines below Yatesboro.

Utilization—Main stream and tributary for water supply by Cowanshannock Coal & Coke Co.

COXE CREEK

Tributary to Casselman River. **Sub-basin: Monongahela.**

NATURAL FEATURES

Source—In Somerset Township, western Somerset County.

Course—Southwesterly to Casselman River.

Mouth—At Rockwood.

Length—Twelve miles.

Drainage Area—Contains 55.5 square miles in western central Somerset County.

Topography—Mountainous; main valley between parallel ridges; agricultural country; upper and middle course practically deforested; lower course well wooded.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Precipitation—Mean annual, 50 to 55 inches.

ARTIFICIAL FEATURES

Towns—Somerset (2,612), Rockwood (1,300).

Industries—Agriculture; coal mines; timber; foundry and machine shop; planing mills.

Railroads—Baltimore & Ohio traverses basin and follows stream from Somerset to mouth; Pittsburgh, Westmoreland & Somerset traverses upper basin.

Utilization—Main stream for Baltimore & Ohio [illegible] at Somerset. Kimberlin Run for water supply at Somerset County Home.

CROOKED CREEK

Tributary to Allegheny River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Rayne Township, central Indiana County; elevation 1,520.

Course—Westerly, by a circuitous route, into Armstrong County; thence northwesterly to Allegheny River.

Mouth—At Rosston; elevation 755.

Length—Fifty-eight miles.

Drainage Area—Contains 290.0 square miles in western Indiana and southern Armstrong counties.

Topography—Rolling, with round topped hills, abrupt slopes and deep, narrow stream valleys. Toward the head of streams the rolling hills are less abrupt, and valleys wider and shallower. Main valley has wide flats and there are good sites for storage. Basin wholly within Allegheny Plateau.

Geology—Shale, sandstone and limestone formations, containing bituminous coal and gas.

Channel—Tortuous, through alluvial flood plains which are very irregular in width, being ¾ of a mile wide in places; banks vary from gentle slopes to precipitous cliffs.

Profile—Rate of fall per mile: from source to elevation 1,200, 3.5 miles, 91.4 feet; thence to elevation 1,100, 5.5 miles, 18.2 feet; thence to mouth, 49 miles, 7.0 feet.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Hileman's Farm, 3 miles above mouth, October 1909.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Marion Center (366), Creekside (563), Shelocta (117), Plumville (414), Atwood (191), Elderton (285).

Industries—Coal; gas; agriculture.

Pollution—Waste from coal banks.

Railroads—Buffalo, Rochester & Pittsburgh traverses basin and follows stream in upper course; Buffalo & Susquehanna traverses basin.

Utilization—Industrial supply at Chambersville. McKee Run for domestic and industrial supply at Ernest; Getty Run for industrial supply by Cummings Water Co. Water power for small mill at South Bend.

CROOKED CREEK

Tributary to Frankstown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Penn Township, western Huntingdon County; elevation 1,100.

Course—Northeasterly to Frankstown Branch Juniata River.

Mouth—Opposite Huntingdon.

Length—Ten and one-half miles.

Drainage Area—Contains 25.4 square miles in western Huntingdon County.

Topography—Basin lies between two parallel mountain ridges; narrow main valley, flanked with steep, high hills.

Channel—Sinuous, through shale, sandstone and some limestone formations.

Profile—Rate of fall per mile: from source to elevation 700, 4 miles, 100 feet; thence to elevation 620, 5 miles, 16 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Grafton (156), McConnellstown (336).

Industries—Agriculture.

Railroads—Huntingdon & Broad Top Mountain follows stream from Grafton to mouth.

Utilization—Water power for small mill.

CROOKED CREEK

Tributary to Little Shenango River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In East Fallowfield Township, southwestern Crawford County; elevation 1,230.

Course—Southerly into Mercer County to Little Shenango River.

Mouth—At Osgood; elevation 965.

Length—Eleven and one-half miles.

Drainage Area—Contains 43.4 square miles in southwestern Crawford and northwestern Mercer counties.

Topography—Wide, flat valley, having swamps filled with glacial drift and numerous trees and brush which retard flow of stream.

Channel—Tortuous, through swamps.

Profile—Rate of fall, from elevation 1,020 to mouth, 10 miles, 5.5 feet per mile. Swamps are caused by choking of drainage by rank growth of trees, brush and grass—not by flat slope.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Hartstown (135), Atlantic (175), Adamsville (175), Kennard (120), Osgood (40).

Industries—Agriculture.

Railroads—Bessemer & Lake Erie follows stream from Hartstown to mouth; Erie traverses basin.

CROOKED CREEK

Tributary to Tioga River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Hornby Hollow and Daggett Hollow, in Chatham Township, northwestern Tioga County; elevation 1,395.

Course—Easterly and northeasterly to Tioga River.

Mouth—At Tioga; elevation 1,018.

Length—Twenty-one miles.

Drainage Area—Contains 137.0 square miles in northern central Tioga County.

Topography—Rough and hilly; valley flanked by steep hills 800 to 1,000 feet high, with wide bottom lands at foot of slope in places.

Channel—Sinuous, through shale and sandstone formations; bordered by wide alluvial flood plains in places.

Profile—Rate of fall per mile: from source to elevation 1,100, 11 miles, 26.8 feet; thence to mouth, 10 miles, 8.2 feet.

Precipitation—Mean annual, 30 to 40 inches

ARTIFICIAL FEATURES

Towns—Little Marsh (225), Chatham Valley (68), Middlebury Center (190), Crooked Creek (157), Hammond (115), Tioga (533).

Industries—Agriculture; tanneries.

Railroads—New York Central & Hudson River traverses basin and follows stream from Middlebury Center to mouth.

CROSS CREEK

Tributary to Ohio River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Mount Pleasant Township, western Washington County; elevation 1,280.

Course—Northwesterly into West Virginia to Ohio River, crossing state boundary at elevation 780.

Mouth—One mile northwest of Lazearville, W. Va.

Length—In Pa., 15.5 miles.

Drainage Area—In Pa., 63.3 square miles in northwestern Washington County.

Topography—Hilly; valleys wind between hills 400 to 500 feet high.

Channel—Tortuous, through clay and sandstone.

Profile—Rate of fall, from elevation 1,100 to state boundary, 14.5 miles, 22.1 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Cross Creek (203), Woodrow (60), Avella (520).

Industries—Coal mines; oil; gas; agriculture.

Railroads—Wabash Pittsburgh Terminal traverses basin and follows stream from junction of South Fork to state boundary.

Utilization—Industrial supply at Avella.

CROSS FORK

Tributary to Kettle Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In West Branch Township, eastern Potter County.

Course—Southwesterly to Kettle Creek.

Mouth—At Cross Fork.

Length—Fourteen miles.

Drainage Area—Contains 45.3 square miles in southeastern Potter County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Shortrun (57), Cross Fork (736).

Industries—Timber; agriculture.

Railroads—Buffalo & Susquehanna follows stream from source to mouth.

Utilization—Elklick Run for water supply at Cross Fork.

CRUM CREEK

Tributary to Delaware River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—Near Malvern, Willistown Township, Chester County; elevation 540.

Course—Southeasterly into Delaware County to Delaware River.

Mouth—Two miles northeast of Chester; tidewater.

Length—Twenty-one and one-half miles.

Drainage Area—Contains 38.3 square miles in eastern Chester and central Delaware counties.

Topography—Broken and hilly country of the Piedmont Plateau; narrow valley flanked with steep hills in lower basin.

Channel—Sinuous, through gneiss formation and in a deep, narrow valley for greater part of its course.

Profile—Rate of fall per mile: from source to elevation 200, 7 miles, 48.6 feet; thence to elevation 20, 12 miles, 15 feet; thence 2.5 miles to mouth.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Malvern (1,125), Swarthmore (1,899), Ridley Park (1,761).

Industries—Condensed milk creamery; agriculture; iron works.

Railroads—Pennsylvania, Philadelphia, Baltimore & Washington and Baltimore & Ohio traverse basin.

Utilization—Water supply by Springfield Consolidated Water Co. for Lansdowne district; industrial supply at Chester, by Baldwin Locomotive Works. Water power by small mills.

CUSHING CREEK

Tributary to Pine Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Ulysses Township, northeastern Potter County.

Course—Southeasterly, by a circuitous route, to Pine Creek.

Mouth—At West Pike; elevation 1,450.

Length—Nine and one-half miles.

Drainage Area—Contains 44.1 square miles in northeastern Potter County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Brookland (63), West Pike (158).

Industries—Timber; agriculture.

Railroads—Buffalo & Susquehanna follows stream from headwaters to mouth.

CUSSEWAGO CREEK

Tributary to French Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Franklin Township, southwestern Erie County.

Course—Southerly into Crawford County to French Creek.

Mouth—At Meadville.

Length—Twenty-eight miles.

Drainage Area—Contains 92.2 square miles in southwestern Erie and northwestern Crawford counties.

Topography—Rolling agricultural lands; basin within glaciated region; valleys filled with glacial drift, the hills in places rising abruptly from streams.

Channel—Tortuous, through shale and glacial deposits; banks are steep in places, where stream has cut through drift.

HYDROGRAPHIC FEATURES

Gaging Station—Established near Meadville, May 1910.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Crossingville (160), Hickernell (80), Mosiertown (144), Norrisville (80).

Industries—Agriculture.

Utilization—Water power for small mill at Meadville.

DARBY CREEK

Tributary to Delaware River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Easttown Township, eastern Chester County; elevation 400.

Course—Southeasterly into Delaware County to Colwyn; thence southwesterly to Delaware River, being Philadelphia-Delaware county boundary for 2 miles.

Mouth—At Essington; tidewater.

Length—Twenty-four miles.

Drainage Area—Contains 78.6 square miles, embracing portions of Chester, Delaware, Montgomery and Philadelphia counties.

Topography—Rolling agricultural country of Piedmont Plateau; thickly settled.

Channel—Sinuous, through a narrow valley flanked with low, steep hills to junction of Cobbs Creek; thence through a tidal flat for 5.5 miles to mouth.

Profile—Rate of fall per mile: from source to elevation 200, 5.5 miles, 36.4 feet; thence to elevation 20, 10 miles, 18 feet; thence 8.5 miles to mouth.

Swamps—Below junction of Cobbs Creek the stream winds through a tidal marsh extending east to Schuylkill River and south to Delaware River.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Lansdowne, July 1911.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Suburbs of Philadelphia, including Berwyn (1,250), Wayne (3,000), Bryn Mawr (2,100), Ardmore (3,650), Narberth (1,790), Lansdowne (4,066), Clifton Heights (3,155), Darby (6,305), Colwyn (1,584).

Industries—(Residential district). Agriculture.

Railroads—Pennsylvania, Philadelphia, Baltimore & Washington and Baltimore & Ohio traverse basin.

Utilization—Water power by a few grist mills.

DARK SHADE CREEK

Tributary to Shade Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Shade Township, eastern Somerset County.

Course—Northwesterly to join Clear Shade Creek and form Shade Creek.

Mouth—Two and one-half miles southeast of Ashtola.

Length—Seven miles.

Drainage Area—Contains 32.9 square miles in northeastern Somerset County.

Topography—Broken and hilly.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Mock (25), Reitz (28).

Industries—Coal; agriculture.

DEEP CREEK

Tributary to Pine Creek. Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—In Broad Mountain, Foster Township, western Schuylkill County; elevation 1,460.

Course—Southwesterly to Pine Creek.

Mouth—One mile north of Springville; elevation 580.

Length—Eighteen and one-half miles.

Drainage Area—Contains 32.3 square miles in western Schuylkill County.

Topography—Rough and hilly, basin lying between mountain ranges.

Channel—Tortuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 1,100 to 900, 2.5 miles, 8 feet; thence to mouth, 15.5 miles, 20.6 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Weishample (39), Hegins (400), Valley View (580), Sacramento (202).

Industries—Agriculture.

DEER CREEK

Tributary to Allegheny River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Middlesex Township, southern Butler County; elevation 1,230.

Course—Southeasterly into Allegheny County to Allegheny River.

Mouth—At Harmarville; elevation 721.

Length—Sixteen miles.

Drainage Area—Contains 51.3 square miles in southern Butler and northeastern Allegheny counties.

Topography—Broken and hilly; rolling hills in upper basin, becoming steep and hemming in the valley in lower basin.

Channel—Sinuous, through shale and sandstone formations; bordered with alluvial flood plains in lower basin.

Profile—Rate of fall per mile: from elevations 1,100 to 900, 5 miles, 40 feet; thence to mouth, 10 miles, 17.9 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Bakerstown (500), Dorseyville (200), Culmerville (125).

Industries—Agriculture; oil; gas; coal.

Railroads—Bessemer & Lake Erie traverses basin.

DEER CREEK

Tributary to Clarion River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—Formed by junction of Paint Creek and Little Deer Creek at Wilsons Mill, Elk Township, Clarion County; elevation 1,147.

Course—Southwesterly to Clarion River.

Mouth—Near Piney, 6 miles southwest of Clarion; elevation 996.

Length—Six and one-half miles.

Drainage Area—Contains 68.9 square miles in northern Clarion County.

Topography—Broken and hilly; narrow valley flanked with rolling hills.

Channel—Sinuous, through shale and sandstone formations, containing coal, oil, gas, and some limestone.

Profile—Rate of fall, from source to mouth, 23.2 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Lickingville (321), Leeper (350), Marble (110), Shippensville (378).

Industries—Oil; coal; agriculture; glycerine works.

Pollution—Waste from glycerine works.

Railroads—Lake Shore & Michigan Southern traverses basin and follows stream from source to near mouth; Baltimore & Ohio traverses basin.

DEETERS RUN

Tributary to Raystown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—Formed by junction of Threelick Run and Breastwork Run, in Allegheny Township, eastern Somerset County.

Course—Northeasterly into Bedford County to Raystown Branch Juniata River.

Mouth—Near New Buena Vista; elevation 1,178.

Length—Seven miles.

Drainage Area—Contains 43.8 square miles in eastern Somerset and western Bedford counties.

Topography—Mountainous; narrow valley flanked with steep, high hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—New Baltimore (177), Kegg (75).

Industries—Agriculture.

DELAWARE RIVER (INCLUDING WEST BRANCH)

Tributary to Delaware Bay. Basin: Delaware.

NATURAL FEATURES

Source—The East and West branches head in the Catskill Mountains of eastern New York, at an elevation of about 1,900, and unite at Hancock, N. Y., on the Pennsylvania-New York boundary, to form main stream; elevation 895.

Course—Southwesterly and southeasterly to Port Jervis, N. Y.; thence southwesterly to Easton; thence southeasterly to 5 miles below Trenton, N. J.; thence southwesterly to Delaware Bay, crossing state line at Marcus Hook. With the lower 7 miles of West Branch main stream forms the eastern boundary of Pennsylvania.

Mouth—At Deep Water Point, Del.; tidewater.

Length—Total, 375 miles. In Pa., West Branch, 7 miles; main stream, 248 miles.

Drainage Area—Total, 12,012 square miles. In New York, 2,650 square miles; in New Jersey, 2,345 square miles; in Pennsylvania, 6,460 square miles, embracing all of 8 and portions of 9 counties in the eastern end of the state.

Topography—Mountainous in upper basin, which lies within the glaciated area, abounding in lakes and ponds. Along the eastern boundary of Wayne and Pike counties the river winds around precipitous, jutting slopes of this high table-land, and finally emerges into a broad, open valley. Stream cuts through Kittatinny Range at Delaware Water Gap, and continues obliquely across the Appalachian Plain to South Mountain below Easton. Thence to Trenton the river is bordered by alternating hills and valleys, below which it drains the low, gently rolling agricultural land of the Piedmont Plateau.

Geology—In the mountainous region the formation is principally shale and sandstone, containing deposits of anthracite and glacial drift. This region contains many lakes and ponds, most of which are natural pools. Below the mountains shale and limestone formations predominate down to Easton; thence to mouth stream cuts through trap, sandstone and gneiss formations.

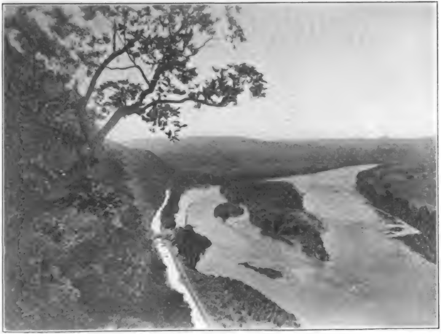
Channel—Above Trenton the stream is generally swift and shallow, flowing over rocky bed with numerous rifles separating pools; the rugged hills which flank the stream rise abruptly from the water in many places, while in other places bottom lands obtain. At Trenton an 8-foot fall occurs which limits the tidal effect extending to this point; the stream has been improved for navigation by the Federal Government along this portion.

Profile—Rate of fall per mile: from Hancock to Port Jervis, 70.5 miles, 6.8 feet; thence to 7 miles above Trenton, elevation 20, 115 miles, 3.5 feet; thence 62.5 miles to Delaware boundary. The following table gives elevations at various points with distances above Pennsylvania-Delaware State Line:

Location	Distance above Pa.-Del. State Line	Elevation above Sea Level
	Miles	Feet
Pennsylvania-Delaware State Line,	0.0	*
Trenton, N. J., P. R. R. Bridge,	55.5	*
Point Pleasant,	79.0	73
Easton,	106.0	157
Delaware Water Gap,	135.5	290
Port Jervis, N. Y.,	177.5	418
Hancock, N. Y.,	248.0	856
Pennsylvania-New York State Line,	255.0	....

*Tidewater.

Plate VIII



Delaware River at Narrowsville

Lakes—Many lakes are found in the glacial regions of Wayne, Pike and Monroe counties, several having areas of 200 acres and over.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Hancock, N. Y., October 1902. At Port Jervis, N. Y., October 1904. At Riegelsville, N. J., July 1906. At Lambertville, N. J., July 1897; discontinued April 1908.

Precipitation—Mean annual, 35 to 55 inches.

NATURAL RESOURCES

Agriculture—This industry is highly developed over the greater portion of the Piedmont Plateau region, which includes the Lehigh Valley and the rich farm lands of Bucks, Montgomery and Chester counties.

Minerals—Anthracite deposits are located in Luzerne, Carbon and Schuylkill counties; cement, limestone and slate in Lehigh Valley; limestone in Lebanon and Chester valleys; iron ore deposits principally in Lebanon Valley and along Schuylkill River.

Timber—The heavy forest cover is located in Wayne, Pike and Monroe counties.

Water Power—Practically no water power is developed on the main river; however, there are numerous plants on the tributaries, notably the Lehigh and Schuylkill rivers.

ARTIFICIAL FEATURES

Towns—Port Jervis, N. Y. (9,564), Easton (28,523), Phillipsburg, N. J. (13,903), Trenton, N. J. (96,815), Philadelphia (1,549,008), Camden, N. J. (94,538), Chester (38,537).

Industries—Coal mines; slate and stone quarries; cement works; steel mills; textile mills; shipyards; commerce; locomotive works; car shops; agriculture; timber.

Railroads—Follow main stream from Pennsylvania-New York boundary to Pennsylvania-Delaware boundary, except between Port Jervis, N. Y., and Delaware Water Gap, and follow principal tributaries. Many traverse basin.

Utilization—Main stream for water supply at many places, including Easton, Morrisville, Bristol, Philadelphia, Eddystone, Chester and Marcus Hook; for water power at Erwinna, Trenton and New Hope. Main stream is navigable up to Trenton. The Delaware Division of the Lehigh Coal & Navigation Canal extends from Easton to Bristol. The Delaware & Hudson Canal, long since abandoned, extended from Lackawaxen to Port Jervis.

DENT RUN

Tributary to Bennett Branch.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Benzinger Township, eastern Elk County.

Course—Southeasterly, crossing southwestern corner of Cameron County and re-entering Elk County, to Bennett Branch Sinnemahoning Creek.

Mouth—At Dents Run.

Length—Eleven miles.

Drainage Area—Contains 36.4 square miles in southeastern Elk and southwestern Cameron counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Dents Run (250).

Industries—Coal mines; timber; agriculture.

Railroads—Dents Run follows stream in lower course.

DINGMANS CREEK

Tributary to Delaware River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—Silver Lake, in Delaware Township, southern central Pike County; elevation 1,308.

Course—Southeasterly to Delaware River.

Mouth—At Dingmans Ferry; elevation 355.

Length—Seven miles.

Drainage Area—Contains 14.8 square miles in southeastern Pike County.

Topography—Broken, mountainous country containing glacial lakes and swamps; well wooded.

Channel—Sinuous, through shale and sandstone formations and glacial drift; several cascades in course, including Fulmer Falls and Dingmans or High Falls.

Profile—Rate of fall, from source to mouth, 136.1 feet per mile.

Lakes—Silver Lake (138 acres), Beaver Dam Lake (10 acres), Lake Nichecronk (29.4 acres).

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Dingmans Ferry (355).

Industries—Agriculture; summer resorts.

Utilization—Water supply at Dingmans Ferry.

DRAKE RUN

Tributary to Youghiogheny River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Stewart Township, Fayette County, near Fayette-Somerset county boundary.

Course—Southeasterly into Somerset County; thence southeasterly and southwesterly to Youghiogheny River.

Mouth—Two miles northwest of Confluence.

Length—Six and one-half miles.

Drainage Area—Contains 13.3 square miles in eastern Fayette and southwestern Somerset counties.

Topography—Hilly; well wooded; some agricultural land.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Draketown (105).

Utilization—Water supply at Confluence.

DRIFTWOOD BRANCH

Tributary to Sinnemahoning Creek.
Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Jones Township, northeastern Elk County.

Course—Southeasterly into Cameron County to Sinnemahoning Creek.

Mouth—At Driftwood.

Length—Thirty-one and one-half miles.

Drainage Area—Contains 316.3 square miles, embracing portions of Elk, McKean, Potter and Cameron counties.

Topography—Rough and hilly country in Allegheny Plateau; narrow valleys flanked with steep hills; well wooded in upper basin.

Geology—Shale and sandstone formations, containing bituminous coal.

Channel—Sinuous; gravel bed with rock ledges and steep, rough banks.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Sterling Run, September 1913.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Emporium (2,916), Cameron (262), Sterling Run (430), Driftwood (517).

Industries—Tannery; powder works; coal mines; timber; agriculture.

Pollution—Waste from coal mines and tannery.

Railroads—Pennsylvania traverses basin and follows stream from Emporium to mouth; several small railroads traverse basin.

Utilization—Industrial supply at Emporium.

DRINKER CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Jackson Township, northeastern Susquehanna County.

Course—Northerly to North Branch Susquehanna River.

Mouth—At Susquehanna.

Length—Five and one-half miles.

Drainage Area—Contains 9.6 square miles in northeastern Susquehanna County.

Topography—Rugged, hilly country in the glaciated area; narrow main valley flanked with steep hills.

Channel—Sinuous, through glacial drift and sandstone formation.

Lakes—Fox Pond (24.0 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Susquehanna (3,478).

Industries—Agriculture; stone quarries; railroad shops.

Utilization—Main stream, in conjunction with Canawacta Creek, for water supply at Lanesboro and Susquehanna.

DRURY RUN

Tributary to West Branch Susquehanna River.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Leidy Township, northwestern Clinton County.

Course—Southeasterly to West Branch Susquehanna River.

Mouth—At Renovo.

Length—Ten miles.

Drainage Area—Contains 19.1 square miles in northwestern Clinton County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Tamarack (60), Renovo (4,621).

Utilization—Water supply at Renovo.

DU BOIS CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Franklin Township, northern central Susquehanna County.

Course—Northeasterly to North Branch Susquehanna River.

Mouth—At Hallstead.

Length—Seven and one-half miles.

Drainage Area—Contains 14.6 square miles in northern central Susquehanna County.

Topography—Rough and hilly; narrow valley flanked with steep hills, partly wooded.

Channel—Sinuous, through glacial drift and sandstone formation.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Hallstead (1,538).

Industries—Agriculture.

Utilization—Water supply at Hallstead and Great Bend.

DUNBAR CREEK

Tributary to Youghiogheny River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Wharton Township, central Fayette County, on eastern slope of Chestnut Ridge; elevation 2,380.

Course—Northerly to Youghiogheny River.

Mouth—Near Connellsville; elevation 875.

Length—Thirteen and one-half miles.

Drainage Area—Contains 38.0 square miles in central Fayette County.

Topography—Mountainous; main stream cuts through Chestnut Ridge in a deep narrow valley, flanked with steep hills 600 to 700 feet high, widening somewhat below Dunbar to mouth.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 2,100 to 1,100, 8.5 miles, 117.6 feet; thence to mouth, 4.5 miles, 50 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Percy (750), Mt. Braddock (725), Dunbar (1,970).

Industries—Extensive coal mining and coking; glass works; agriculture.

Pollution—Waste from coal mines in lower basin.

Railroads—Pennsylvania and Baltimore & Ohio traverse basin and follow stream near mouth.

Utilization—Municipal and industrial supply in lower basin; industrial supply for Dunbar Water Supply Co.

DUNKARD CREEK

Tributary to Monongahela River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—Formed by junction of Pennsylvania and West Virginia forks, near state boundary, in Wayne Township, southern Greene County; elevation 962.

Course—Northeasterly, crossing state boundary 12 times, to Monongahela River.

Mouth—Near Lock No. 8; elevation 770.

Length—Thirty-six miles.

Drainage Area—Total, 200.1 square miles; in Pa., 123.5 square miles in southern Greene County.

Topography—Hilly; main valley varies from broad flats to narrow gorges, and is flanked with hills of widely varying slope.

Channel—Tortuous, through sandstone formations, containing coal, oil and gas; banks of irregular slope, being precipitous cliffs in places.

Profile—Rate of fall, from source to mouth, 5.3 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established at "Bobtown," October 1909.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Jollytown (110), Pine Bank (160), Mt. Morris (382), Dunkard (175).

Industries—Oil; gas; agriculture.

Utilization—Water power for a small mill.

DUNKARD FORK

Tributary to Wheeling Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—Formed by junction of North and South forks at Ryerson Station, Richhill Township, western Greene County; elevation 932.

Course—Northwesterly into West Virginia to Wheeling Creek, crossing state boundary at elevation 848.

Mouth—In West Virginia, near Pennsylvania boundary.

Length—In Pa., 6 miles.

Drainage Area—In Pa., 72.4 square miles in western Greene County.

Topography—Hilly; valleys flanked with steep hills 400 to 500 feet high.

Channel—Sinuous, through clay and sandstone.

Profile—Rate of fall, from source to state boundary, 14 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Bristoria (143), Aleppo (97), McCracken (114), Wind Ridge (200).

Industries—Coal mines; oil; gas; agriculture.

DUNKARD FORK, NORTH FORK

Tributary to Dunkard Fork. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Jackson Township, western Greene County; elevation 1,220.

Course—Northwesterly to Dunkard Fork Wheeling Creek.

Mouth—At Ryerson Station; elevation 932.

Length—Eight and one-half miles.

Drainage Area—Contains 28.2 square miles in western Greene County.

Topography—Hilly; valleys flanked with steep hills 400 to 500 feet high.

Channel—Sinuous, through clay and sandstone.

Profile—Rate of fall, from elevation 1,040 to mouth, 7 miles, 15.4 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Delphene (50), Bristoria (143), Ryerson Station (73).

Industries—Coal mines; oil; gas; agriculture.

DUNKARD FORK, SOUTH FORK

Tributary to Dunkard Fork. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Aleppo Township, southwestern Greene County; elevation 1,380.

Course—Northwesterly to Dunkard Fork Wheeling Creek.

Mouth—At Ryerson Station; elevation 932.

Length—Nine miles.

Drainage Area—In Pa., 26.4 square miles in western Greene County.

Topography—Hilly; valleys flanked with steep hills 400 to 500 feet high.

Channel—Sinuous, through clay and sandstone.

Profile—Rate of fall, from elevation 1,100 to mouth, 7.5 miles, 22.4 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Aleppo (97), McCracken (114), Ryerson Station (73).

Industries—Coal mines; oil; gas; agriculture.

DUNLAP CREEK

Tributary to Monongahela River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—Near Balsinger, German Township, western Fayette County; elevation 1,170.

Course—Northwesterly to Monongahela River.

Mouth—At Brownsville; elevation 735.

Length—Eighteen and one-half miles.

Drainage Area—Contains 41.7 square miles in western Fayette County.

Topography—Broken and hilly; main valley in upper course is wide, flanked with hills of gentle slope; becomes narrow in lower course and is hemmed in by steep hills.

Channel—Tortuous, through broad flats in upper course, banks becoming steep in lower course; carved in clay, limestone and sandstone.

Profile—Rate of fall per mile: from elevations 1,100 to 1,000, 2.5 miles, 40 feet; thence to elevation 900, 10 miles, 10 feet; thence to mouth, 5.5 miles, 30 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—New Salem (1,000), Dearth (125), Merrittstown (71), Brownsville (2,324).

Industries—Numerous coal mines and coke ovens; glass, iron and steel works at Brownsville; oil; gas; agriculture.

Pollution—Waste from coal mines.

Railroads—Monongahela traverses basin and follows stream from headwaters to mouth; Redstone Central traverses basin.

Utilization—Domestic supply at Brownsville and for industrial supply at mines and coke ovens. Fourmile Run and branches of Saltlick Run for industrial supply.

DUNNING CREEK

Tributary to Raystown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Napier Township, western Bedford County; elevation 2,060.

Course—Northeasterly and southeasterly to Raystown Branch Juniata River.

Mouth—Near Bedford; elevation 1,030.

Length—Twenty-six miles.

Drainage Area—Contains 198.3 square miles, embracing portions of Cambria, Blair and Bedford counties.

Topography—Basin lies within Allegheny Mountain region; main valley flanked by Allegheny, Evitts and Dunning mountains.

Channel—Sinuous, through wide bottom lands at foot of mountain slopes.

Profile—Rate of fall per mile: from elevations 1,500 to 1,100, 11.5 miles, 34.8 feet; thence to mouth, 13 miles, 5.4 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—New Paris (194), Ryot (100), Pleasantville (191), Osterburg (300), Cessna (175).

Industries—Agriculture.

Railroads—Pennsylvania traverses basin and follows stream in lower course.

Utilization—Water power by a few small grist mills.

DURHAM CREEK

Tributary to Delaware River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Springfield Township, northwestern Bucks County; elevation 840.

Course—Northeasterly to Delaware River.

Mouth—At Durham Furnace; elevation 128.

Length—Ten miles.

Drainage Area—Contains 29.6 square miles in northern Bucks and southern Northampton counties.

Topography—Broken, hilly plateau region west of Delaware River.

Channel—Sinuous, through shale and sandstone formations, with limestone in lower basin.

Profile—Rate of fall per mile: from elevations 600 to 300, 3 miles, 100 feet; thence to mouth, 6 miles, 28.7 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Pleasant Valley (250), Bursonville (165), Springtown (361), Durham (100).

Industries—Agriculture.

DYBERRY CREEK

Tributary to Lackawaxen River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—Formed by junction of East and West branches, near Tanners Falls, in Dyberry Township, central Wayne County; elevation 1,050.

Course—Southeasterly to Lackawaxen River.

Mouth—At Honesdale; elevation 970.

Length—Seven miles.

Drainage Area—Contains 71.3 square miles in central Wayne County.

Topography—Broken, mountainous country containing many lakes and swamps of glacial origin.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Profile—Rate of fall per mile: from source to elevation 980, 3.5 miles, 20 feet; thence to mouth, 3.5 miles, 2.9 feet.

Lakes—Niles Pond (23.6 acres), Lower Woods Pond (57.9 acres), Upper Woods Pond (75.7 acres), Rose Pond (46.6 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Tanners Falls (164), Dyberry (96), Bethany (130), Honesdale (2,945).

Industries—Cut glass factory; agriculture; tannery.

DYBERRY CREEK, WEST BRANCH

Tributary to Dyberry Creek. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Mount Pleasant Township, northwestern Wayne County.

Course—Southeasterly to Dyberry Creek.

Mouth—Near Tanners Falls; elevation 1,050.

Length—Eleven and one-half miles.

Drainage Area—Contains 28.8 square miles in western central Wayne County.

Topography—Broken, mountainous country containing lakes and swamps of glacial origin.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Profile—Rate of fall per mile: from elevations 1,500 to 1,400, 1 mile, 100 feet; thence to mouth, 6 miles, 58.3 feet.

Lakes—Rock Lake (73.8 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Cold Spring (54), Tanners Falls (164).

Industries—Agriculture; tannery.

Utilization—Water power by grist mill at Tanners Falls.

ELK CREEK

Tributary to Pine Creek. Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—In Miles Township, eastern Center County.

Course—Southwesterly, by a circuitous route, to Pine Creek.

Mouth—Near Coburn.

Length—Nineteen miles.

Drainage Area—Contains 54.5 square miles in eastern Center County.

Topography—Mountainous; main valley lies between parallel ranges, cutting through Brush Mountain and forming Millheim Gap.

Channel—Tortuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Rebersburg (275), Aaronsburg (400), Millheim (626).

Industries—Hosiery mill; foundry; machine shop; planing and grist mills; agriculture.

Utilization—Philips Run for water supply at Millheim. Water power for a few small grist mills.

ELK CREEK

Tributary to Clarion River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Benzinger Township, eastern Elk County.

Course—Southerly to St. Marys; thence westerly to Clarion River.

Mouth—At Ridgway.

Length—Fifteen miles.

Drainage Area—Contains 66.8 square miles in eastern Elk County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; densely wooded.

Channel—Sinuous, through shale and sandstone formations containing coal.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Daguscahonda (257), St. Marys (6,346), Kersey (600), Ridgway (5,408).

Industries—Coal; tanneries; brick works; timber; glass works; railroad shops; chemical works.

Pollution—Waste from tanneries and chemical works.

Railroads—Pennsylvania follows stream from headwaters to mouth; Pittsburgh, Shawmut & Northern and Erie traverse basin.

Utilization—Silver Run and Laurel Run for water supply at St. Marys.

ELK CREEK

Tributary to Lake Erie. Basin: Erie.

NATURAL FEATURES

Source—In Waterford Township, central Erie County.

Course—Northwesterly to Lake Erie.

Mouth—Three miles northwest of Girard; elevation 573.

Length—Twenty-seven and one-half miles.

Drainage Area—Contains 96.2 square miles in western central Erie County.

Topography—Gently sloping area, traversed by streams having gently sloping valleys at headwaters, changing to deep ravines near the lake.

Channel—Tortuous, chiefly in lower course; carved in alluvial deposits, having steep banks of shale and sandstone in lower course, and in a deep ravine with wide flat bottom for last 5 miles.

Profile—Rate of fall, from elevation 720 to mouth, 10 miles, 14.7 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—McKean (430), Sterrettania (118), Franklin Corners (200), Girard (1,165).

Industries—Wrench and wood working factories; stone quarries; agriculture; fruit growing.

Railroads—Bessemer & Lake Erie, Pennsylvania Lines West of Pittsburgh, New York, Chicago & St. Louis and Lake Shore & Michigan Southern traverse basin.

Utilization—Water power for small mills at Girard.

ELK CREEK

Tributary to Loyalsock Creek.

Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Fox Township, northwestern Sullivan County.

Course—Southerly to Loyalsock Creek.

Mouth—Two miles northeast of Hillsgrove.

Length—Ten miles.

Drainage Area—Contains 55.2 square miles in northwestern Sullivan County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; partly wooded.

Channel—Sinuous, through shale and sandstone formations.

Lakes—Elk Lake (15 acres), Lake William (10 acres).

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Lincoln Falls (50), Piatt (57), Shunk (216).

Industries—Timber.

ELK (BIG) CREEK

Tributary to Elk River. Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—Formed by junction of East and West branches, 3.5 miles east of Oxford, Chester County; elevation 318.

Course—Southeasterly into Maryland; thence southerly to Elk River.

Mouth—At Elkton, Md.; tidewater.

Length—In Pa., 8 miles.

Drainage Area—In Pa., 54.2 square miles in southern Chester County.

Topography—Rolling agricultural country; main valley narrows near junction of branches and is flanked with steep hills to state boundary.

Channel—Sinuous, through slate and gneiss formation.

Profile—Rate of fall, from source to state boundary, elevation 172, 18.2 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Lincoln University (300), Kelton (150), New London (150), Hickoryhill (113), Lewisville (160).

Industries—Agriculture.

Railroads—Philadelphia, Baltimore & Washington traverses upper basin.

Utilization—Main stream and two main tributaries for water power by small mills.

EMIGH RUN

Tributary to Moshannon Creek.
Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Boggs Township, eastern Clearfield County; elevation 1,800.

Course—Southeasterly to Moshannon Creek.

Mouth—At Loch Lomond Junction.

Length—Four miles.

Drainage Area—Contains 4.7 square miles in eastern Clearfield County.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations containing coal.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Morrisdale (669).
Industries—Coal mines; agriculture.
Railroads—Pennsylvania traverses basin.
Utilization—Water supply at Morrisdale.

ENSLOW FORK

Tributary to Wheeling Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—On Washington-Greene county boundary; elevation 1,290.

Course—Southwesterly, forming Washington-Greene county boundary, into West Virginia to Wheeling Creek, crossing state boundary at elevation 835.

Mouth—In West Virginia, near Pennsylvania boundary.

Length—In Pa., 14.5 miles.

Drainage Area—In Pa., 69.3 square miles in southwestern Washington and northwestern Greene counties.

Topography—Hilly; valleys flanked with steep hills 400 to 500 feet high.

Channel—Sinuous, through clay and sandstone.

Profile—Rate of fall, from elevation 1,100 to state boundary, 13 miles, 20.4 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—East Finley (45), West Finley (130).
Industries—Coal mines; oil; gas; agriculture.

EQUINUNK CREEK

Tributary to Delaware River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Moosic Mountains, Preston Township, northwestern Wayne County.

Course—Southeasterly and northeasterly to Delaware River.

Mouth—Near Equinunk.

Length—Twelve and one-half miles.

Drainage Area—Contains 56.0 square miles in northern Wayne County.

Topography—Rough and hilly country, containing many lakes and swamps of glacial origin; well wooded.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Lakes—Upper Twin Lake (58.8 acres), Lower Twin Lake (20.7 acres), Lake Como (80.0 acres), Seven Mile Pond (72.9 acres), Williams Mill Pond (22.1 acres), High Lake (47.4 acres), Spruce Pond (20.0 acres), Long Pond (41.7 acres), Little Hickory Pond (52.4 acres), Big Hickory Pond (57.3 acres), Lake Poyntelle (63.5 acres), Sly Pond (52.5 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Lake Como (240), Equinunk (425).

Industries—Tannery; agriculture; summer resorts; ice harvesting.

Railroads—New York, Ontario & Western traverses upper basin.

EQUINUNK (LITTLE) CREEK

Tributary to Delaware River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Lebanon Township, northeastern Wayne County.

Course—Northeasterly to Delaware River.

Mouth—At Kellam.

Length—Ten and one-half miles.

Drainage Area—Contains 25.1 square miles in northeastern Wayne County.

Topography—Rough and hilly country, containing many lakes and swamps of glacial origin; well wooded.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Lakes—Union Lake (26.7 acres), Mud Pond (18.4 acres), Price Pond (20.0 acres), Duck Harbor Pond (121.6 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Braman (28).

Industries—Agriculture; ice harvesting.

ERIE BASIN

NATURAL FEATURES

Drainage Area—Area in Pennsylvania tributary to Lake Erie embraces portions of Erie and Crawford counties, containing 512 square miles, or 1.1 per cent of total area of state. The divide between Erie and Ohio basins lies 7 miles south of Lake Erie at the Pennsylvania-New York state line and 12 miles south of Lake Erie at a point 14 miles east of the western boundary of the state, where it turns south into Crawford County, forming a loop, and crosses the Pennsylvania-Ohio state line 16 miles south of Lake Erie. The point farthest south is 26 miles from the lake.

Topography—The surface slopes in a series of terraces from an elevation of 1,300 to 1,400, to 600 to 700, which latter elevation is that of the bluff along the lake shore. Numerous streams coming down from the divide, when nearing the lake, cut through this bluff and flow in narrow and precipitous channels. The streams have rapid fall when heading toward the lake, while their slope becomes much less when paralleling the direction of the lake shore.

Geology—The formations are alluvial and consist of clay, sand, shale and sandstone. Gas, oil and iron ore are found. A few mineral springs.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Albion (1,534), Girard (1,165), Erie (66,525), North East (2,672).

Industries—Agriculture and fruit growing are extensively developed. Natural gas is found, but very little oil; clay deposits and flag and building stone quarries are numerous. Engines, boilers, tools, machines, boats, automobiles, furniture, paper, carriages, etc., are manufactured at Erie. Navigation on the lake is a very important industry.

Railroads—Pennsylvania, Pennsylvania Lines West of Pittsburgh, Bessemer & Lake Erie, New York, Chicago & St. Louis and Lake Shore & Michigan Southern traverse basin.

Utilization—Springs, wells and small streams are used for water supply. Erie takes its supply from the lake. There have been small water power plants for grist mills and small manufacturing plants.

EVITTS CREEK

Tributary to Potomac River. Basin: Potomac.

NATURAL FEATURES

Source—In Cumberland Valley Township, southern central Bedford County, near Burning Bush.

Course—Southwesterly into Maryland to Potomac River, crossing state boundary at elevation 776.

Mouth—Near South Cumberland, Md.; elevation 588.

Length—In Pa., 17 miles.

Drainage Area—In Pa., 80.0 square miles in southwestern Bedford County.

Topography—Mountainous; main valley lies between parallel ridges of Wills and Evitts mountains.

Channel—Sinuous, through sandstone and limestone formations; rough with steep banks.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Cumberland Valley (157).

Industries—Agriculture.

Utilization—Water supply for Cumberland Valley Township and at Cumberland, Md.

FALL BROOK

Tributary to Lackawanna River.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Clifford Township, southeastern Susquehanna County; elevation 1,740.

Course—Southerly into Lackawanna County to Lackawanna River.

Mouth—Near Carbondale; elevation 1,040.

Length—Seven and one-half miles.

Drainage Area—Contains 13.0 square miles in southeastern Susquehanna and northeastern Lackawanna counties.

Topography—Rough and hilly; main valley is narrow in middle course and flanked with steep hills rounded by glacial action.

Channel—Sinuous, through shale and sandstone formations, containing deposits of anthracite in lower basin.

Profile—Rate of fall, from source to mouth, 93.3 feet per mile.

Lakes—Crystal Lake (191.4 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Carbondale (17,040).

Industries—Agriculture; coal mines; summer resort.

Pollution—Waste from coal mines in lower course.

Utilization—Crystal Lake, main stream and Newton Creek for water supply at Carbondale. Tributary for ice harvesting.

FALLS CREEK

Tributary to Sandy Lick Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Washington Township, northeastern Jefferson County.

Course—Southeasterly to Sandy Lick Creek.

Mouth—At Falls Creek.

Length—Seven miles.

Drainage Area—Contains 23.4 square miles in northwestern Clearfield and northeastern Jefferson counties.

Topography—Broken and hilly.

Channel—Sinuous, through shale and sandstone formations, containing coal deposits and some limestone.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Westville (496), Rockdale Mills (150), Falls Creek (1,204).

Industries—Coal mines; quarries; brick works; glass works; tanneries; agriculture.

Railroads—Pennsylvania and Buffalo, Rochester & Pittsburgh traverse basin.

Utilization—Water supply at Falls Creek.

FISHING CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—Formed by junction of East and West branches, in Sugar Loaf Township, northeastern Columbia County.

Course—Southerly and southwesterly to North Branch Susquehanna River.

Mouth—At Rupert; elevation 463.

Length—Twenty-nine and one-half miles.

Drainage Area—Contains 377.7 square miles, embracing portions of Sullivan, Lycoming, Luzerne and Columbia counties.

Topography—Basin lies in Allegheny Mountain region; rough and hilly country; main valley narrow, flanked with high, steep hills.

Geology—Shale and sandstone formations, with some limestone in lower basin. Terminal moraine crosses upper basin, where there are a few small lakes and ponds.

Channel—Sinuous, through alluvial bottom lands, ¾ mile wide in places, with steep hills beyond.

Profile—Rate of fall per mile: from elevation 780 to Huntington Creek, elevation 604, 9 miles, 19.6 feet; thence to mouth, 15.5 miles, 9.1 feet.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Bloomsburg, January 1914.

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Jamison City (420), Harveyville (230), Cambria (213), Huntington Mills (229), Coles Creek (97), Benton (719), Millville (611), Stillwater (176), Orangeville (399), Light Street (326), Bloomsburg (7,413), Buckhorn (183), Rupert (486).

Industries—Tanneries; paper mills; woolen mills; sawmills; iron foundries; agriculture; timber.

Pollution—Waste from paper mills and tanneries.

Railroads—Bloomsburg & Sullivan follows stream from source to Bloomsburg; Susquehanna, Bloomsburg & Berwick traverses basin.

Utilization—Main stream for water supply at Bloomsburg; a small tributary for water supply at Jamison City. Main stream for water power by 3 small hydroelectric plants, 2 paper mills, 4 grist mills and 1 sawmill.

FISHING CREEK, WEST BRANCH

Tributary to Fishing Creek.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Davidson Township, southern Sullivan County.

Course—Easterly into Columbia County; thence southeasterly, by a circuitous route, to Fishing Creek.

Mouth—Near Guava.

Length—Eleven miles.

Drainage Area—Contains 33.8 square miles in southern Sullivan and northern Columbia counties.

Topography—Rough and hilly; narrow valley flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Emmons (71), Elk Grove (83), Central (91).

Industries—Agriculture; timber.

Railroads—Central Pennsylvania Lumber Company follows stream.

FISHING (BIG) CREEK

Tributary to Bald Eagle Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Greene Township, southeastern Clinton County.

Course—Southwesterly and northerly, by a circuitous route, to Bald Eagle Creek.

Mouth—At Mill Hall.

Length—Thirty-three and one-half miles.

Drainage Area—Contains 183.6 square miles in southeastern Clinton and eastern Center counties.

Topography—Mountainous; broad, fertile valleys between the ridges; main valley cuts through Bald Eagle Ridge in lower basin.

Channel—Sinuous, through sandstone and limestone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Loganton (375), Booneville (149), Tylersville (200), Lamar (310), Hublersburg (183), Clintondale (173), Mackeyville (178), Salona (250), Mill Hall (1,043).

Industries—Iron ore mines; agriculture; tool works.

Railroads—Central Railroad of Pennsylvania traverses basin and follows stream from Lamar to mouth; White Deer & Loganton follows stream in upper course.

Utilization—Pennsylvania Railroad water supply at Mill Hall. Tributaries by White Deer & Loganton Railroad. Water power for a few grist mills.

FISHING (LITTLE) CREEK

Tributary to Big Fishing Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Spring Township, central Center County.

Course—Northeasterly into Clinton County to Big Fishing Creek.

Mouth—At Lamar.

Length—Thirteen miles.

Drainage Area—Contains 47.3 square miles in eastern Center and southeastern Clinton counties.

Topography—Mountainous; broad, fertile valley between ridges.

Channel—Sinuous, through sandstone and limestone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Mingoville (40), Hublersburg (183), Nittany (100), Lamar (310).

Industries—Iron ore mines; agriculture.

Railroads—Central Railroad of Pennsylvania follows stream from Mingoville to mouth.

Utilization—Water power for a few grist mills.

FISHING (LITTLE) CREEK

Tributary to Fishing Creek.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Jordan Township, southeastern Lycoming County.

Course—Southeasterly into Columbia County; thence southwesterly to Millville; thence southeasterly to Fishing Creek.

Mouth—Two miles northwest of Bloomsburg; elevation 495.

Length—Twenty miles.

Drainage Area—Contains 65.3 square miles in southeastern Lycoming and northwestern Columbia counties.

Topography—Rough and hilly; narrow valleys flanked with steep, high hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Iola (114), Millville (611), Eyers Grove (110), Mordansville (72).

Industries—Woolen mills; tanneries; agriculture.

Railroads—Susquehanna, Bloomsburg & Berwick traverses basin and follows stream from Millville to mouth.

Utilization—Auxiliary water supply at Millville. Water power by small grist mills.

FOURMILE RUN

Tributary to Loyalhanna Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Donegal Township, southeastern Westmoreland County.

Course—Northeasterly to Loyalhanna Creek.

Mouth—At Darlington; elevation 1,115.

Length—Fourteen and one-half miles.

Drainage Area—Contains 39.3 square miles in southeastern Westmoreland County.

Topography—Mountainous.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Donegal (147), Keffer (31).

Industries—Agriculture.

FRANKFORD CREEK

Tributary to Delaware River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—Formed by junction of Tacony and Wingohocking creeks, about 1 mile west of Frankford, Philadelphia County; elevation 30.

Course—Southeasterly, by a circuitous route, to Delaware River.

Mouth—At U. S. Arsenal, above Bridesburg; tidewater.

Length—Four and one-half miles.

Drainage Area—Contains 36.1 square miles in southeastern Montgomery and eastern central Philadelphia counties.

Topography—Rolling agricultural country, highly developed and thickly settled.

Channel—Sinuous, through gneiss formation.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Edge Hill (550), Wyncote (400), Jenkintown (2,968), Ogontz (612), Ashbourne (676), Cheltenham (500); suburban towns of Philadelphia, including Oak Lane, Lawndale, Olney, Feltonville, Germantown, Wayne Junction, Frankford and Bridesburg.

Industries—Brick yards; textile and tapestry mills; U. S. Arsenal.

Railroads—Pennsylvania and Philadelphia & Reading traverse basin.

FRANKSTOWN BRANCH

Tributary to Juniata River. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—Formed by junction of Beaverdam Creek and Boiling Spring Run, in Greenfield Township, southern Blair County; elevation 1,164.

Course—Northeasterly to Water Street, forming Blair-Huntingdon county boundary for 4 miles; thence southeasterly into Huntingdon County to Juniata River.

Mouth—Near Ardenheim.

Length—Fifty-six and one-half miles.

Drainage Area—Contains 997.8 square miles, embracing portions of Bedford, Cambria, Blair, Center and Huntingdon counties.

Topography—Basin lies within Allegheny Mountain region; main valley between ridges and through gaps in ranges; ridges are well wooded; agriculture in bottom lands.

Geology—Shale, sandstone and limestone formations, containing some iron ore; upper basin especially rich in limestone and contains numerous springs.

Channel—Tortuous, through rough, rocky beds, flanked with steep banks; in a deep gorge from Petersburg to mouth.

Profile—Rate of fall, from source to elevation 820, 30 miles, 11.5 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Huntingdon, May 1895.

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Martinsburg (920), Roaring Spring (1,903), Duncansville (1,263), Hollidaysburg (3,734), Altoona (52,127), Bellwood (227), Tyrone (7,176), Williamsburg (1,523), Alexandria (432), Petersburg (705), Huntingdon (6,861).

Industries—Agriculture; flour mills; planing mills; paper mills; silk mills; iron and roller mills; foundries; railroad shops; glass factories; brick works; breweries.

Railroads—Pennsylvania traverses basin and follows stream from source to mouth; Huntingdon & Broad Top Mountain traverses basin.

Utilization—Water supply at Huntingdon Reformatory; industrial supply by Pennsylvania Railroad Co. Hydroelectric plant at Warrior Ridge; several small grist mills on main stream.

FREEMAN RUN

Tributary to First Fork Sinnemahoning Creek.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Keating Township, western Potter County.

Course—Southeasterly to First Fork Sinnemahoning Creek.

Mouth—At Costello.

Length—Twelve miles.

Drainage Area—Contains 33.9 square miles in western Potter County.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Odin (27), Austin (2,941), Costello (956).

Industries—Timber; paper mills; foundry; railroad shops; agriculture; tannery.

Railroads—Buffalo & Susquehanna traverses basin and follows stream from Austin to mouth.

Utilization—Industrial supply at Austin. The Austin Dam, which was used to impound water for industrial supply by Bayless Pulp & Paper Co., and which failed on September 30, 1911, with disastrous results to lives and property, was located on Freeman Run, above Austin.

FRENCH CREEK

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Union Township, southern Berks County; elevation 620.

Course—Southeasterly into Chester County to Schuylkill River.

Mouth—At Phoenixville; elevation 78.

Length—Twenty-two miles.

Drainage Area—Contains 71.0 square miles in southern Berks and northern Chester counties.

Topography—Entire basin within Piedmont Plateau. Upper basin is rough and hilly; lower basin more rolling.

Channel—Sinuous, through red shale and sandstone formations, containing intrusions of trap rock.

Profile—Rate of fall per mile: from source to elevation 500, 1 mile, 120 feet; thence to elevation 400, 4 miles, 25 feet; thence to Knauertown, elevation 300, 1 mile, 100 feet; thence to mouth, 16 miles, 13.9 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—St. Peters (421), Warwick (226), Elverson (350), Coventryville (123), Pughtown (130), Nantmeal Village (256), Birchrunville (165), Kimberton (300), Phoenixville (10,743).

Industries—Iron and steel works; agriculture; quarries.

Railroads—Philadelphia & Reading traverses basin and follows stream in lower course.

Utilization—Industrial supply by Phoenix Iron Co.; Philadelphia & Reading railroad supply at Phoenixville. Water power by numerous grist mills, and one private hydroelectric plant at St. Peters.

FRENCH CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Chautauqua County, southwestern New York; elevation 1,740.

Course—Southwesterly, through Erie County, Pennsylvania, into Crawford County to Meadville; thence southeasterly, through Mercer County, into Venango County to Allegheny River.

Mouth—At Franklin; elevation 959.

Length—In Pa., 78 miles.

Drainage Area—Total, 1,246.0 square miles; in Pa., 1,135.1 square miles, embracing portions of Erie, Crawford, Mercer and Venango counties.

Topography—Rolling agricultural country with broad valleys; many lakes and swamps of glacial origin; except for a small portion of lower end, the basin lies within the glaciated region.

Geology—Shale and sandstone formations, containing oil in lower basin. Drift deposited by melting ice of glacier has covered many parts of basin to considerable depth. The terminal moraine crosses valley a short distance below Utica in a northeasterly-southwesterly direction.

Channel—Tortuous, through marshes, swamps, deep pools, lakes and broad flats; banks become steeper and valley narrower in lower course. The French Creek Division of Pennsylvania Canal system followed main stream from Franklin up 22 miles to a feeder.

Profile—Rate of fall, from Utica, elevation 1,020, to mouth, 9.5 miles, 6.4 feet per mile.

Lakes—Conneaut Lake (928.5 acres), Sugar Lake (90.1 acres), Conneautte Lake (247.0 acres), Lake Leboeuf (70.3 acres), Lake Pleasant (59.7 acres).

Springs—Numerous mineral springs are found in Crawford County, near Cambridge Springs.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Kimmeytown, near Union City, May 1910. At Carlton, April 1908.

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Wattsburg (283), Corry (5,991), Union City (3,684), Cambridge Springs (1,514), Venango (251), Saegerstown (712), Meadville (12,780), Conneaut Lake (725), Cochranton (695), Utica (265), Franklin (9,767).

Industries—Agriculture; furniture factories; machine shops; planing mills; cement works; railroad shops.

Pollution—Industrial waste at Meadville.

Railroads—Erie traverses basin and follows stream from Leboeuf to mouth; Bessemer & Lake Erie traverses basin; Pennsylvania and Lake Shore & Michigan Southern traverse basin and follow stream near mouth.

Utilization—Domestic supply at Cambridge Springs; Erie Railroad supply at Cambridge Springs; emergency and industrial supply at Saegerstown, Meadville and Franklin. Tributary for water supply at Union City. Water power by small grist mills.

FRENCH CREEK, SOUTH BRANCH

Tributary to French Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Concord Township, southeastern Erie County.

Course—Northerly and westerly to French Creek.

Mouth—Near Leboeuf.

Length—Eighteen miles.

Drainage Area—Contains 86.4 square miles in southeastern Erie County.

Topography—Rolling agricultural country with broad valleys; basin lies within the glaciated region.

Channel—Tortuous, through shale and glacial drift; bordered by swamps and lowlands.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Corry (5,991), Elgin (148), Union City (3,684).

Industries—Agriculture.

Railroads—Pennsylvania traverses basin and follows stream from source to mouth; Erie follows stream from Corry to mouth.

Utilization—A small tributary of Bentley Run for water supply at Union City. Water power by grist mills.

FRENCH CREEK, WEST BRANCH

Tributary to French Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Chautauqua County, southwestern New York.

Course—Southwesterly into Erie County, Pennsylvania; thence southwesterly, by a circuitous route, to French Creek.

Mouth—At Wattsburg.

Length—In Pa., 15 miles.

Drainage Area—Total, 74.6 square miles; in Pa., 50.5 square miles in eastern Erie County.

Topography—Rolling agricultural country, with broad valleys; basin lies within the glaciated region and contains many small lakes and swamps.

Channel—Tortuous, through shale and glacial drift.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Green Field (100), Philipsville (63), Lowville (133), Wattsburg (283).

Industries—Agriculture; fruit growing.

Utilization—Water power for small mill at Lowville.

GENESEE FORK

Tributary to Pine Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Harrison Township, northeastern Potter County; elevation 2,250.

Course—Southerly to Pine Creek.

Mouth—At West Pike; elevation 1,450.

Length—Eleven and one-half miles.

Drainage Area—Contains 33.6 square miles in northeastern Potter County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded; upper basin in glaciated region.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall, from source to mouth, 69.6 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—West Pike (158).

Industries—Timber; agriculture.

Railroads—Buffalo & Susquehanna traverses basin and follows stream in lower course.

GENESEE RIVER

Tributary to Lake Ontario. Basin: Genesee.

NATURAL FEATURES

Source—In Ulysses Township, northeastern Potter County.

Course—Northwesterly into New York; thence northwesterly and northeasterly to Lake Ontario.

Mouth—In New York.

Length—In Pa., 11 miles.

Drainage Area—In Pa., 96.0 square miles in northern Potter County.

Topography—Rough and hilly country with narrow valleys between steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Ulysses (619), Lewisville (579), Ellisburg (92), Genesee (600).

Industries—Agriculture.

Railroads—New York & Pennsylvania, Coudersport & Port Allegany and New York Central & Hudson River traverse basin; Buffalo & Susquehanna traverses basin and follows stream from West Bingham to state boundary.

GEORGE CREEK

Tributary to Monongahela River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—Formed by junction of Askon Hollow and White Rock Hollow, in George Township, southern Fayette County; elevation 1,220.

Course—Southwesterly to Monongahela River.

Mouth—At New Geneva; elevation 770.

Length—Sixteen miles.

Drainage Area—Contains 65.7 square miles in southwestern Fayette County.

Topography—Mountainous at headwaters; rolling hills in lower basin. Main valley, from Fairchance to junction of Yorks Run, wide with gentle slopes; thence it narrows and is flanked with steep hills.

Channel—Sinuous, through clay, limestone and sandstone.

Profile—Rate of fall per mile: from elevations 1,100 to 1,000, 1.5 miles, 66.7 feet; thence to mouth, 13.5 miles, 17.0 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Oliphant Furnace (180), Fairchance (1,760), Smithfield (749), New Geneva (299).

Industries—Numerous coal mines and coke ovens; limestone; clay; gas; agriculture.

Pollution—Waste from coal mines.

Railroads—Baltimore & Ohio traverses basin and follows stream in upper course; Pennsylvania traverses upper basin.

Utilization—Tributaries for water supply at Fairchance and for industrial supply by Baltimore & Ohio Railroad, coke ovens and mines. Water power for a few small mills.

GLADE RUN

Tributary to Allegheny River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Sugarcreek Township, western Armstrong County; elevation 1,440.

Course—Southerly to Allegheny River.

Mouth—Two miles southwest of Ford City; elevation 754.

Length—Thirteen miles.

Drainage Area—Contains 25.7 square miles in western Armstrong County.

Topography—Broken and hilly; main valley is narrow and flanked with steep hills, 200 to 300 feet high.

Channel—Sinuous, through shale, sandstone and limestone formations, containing coal and gas; bordered with narrow, alluvial flood plains.

Profile—Rate of fall per mile: from elevations 1,200 to 900, 10 miles, 30 feet; thence to mouth, 2 miles, 73 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Cowansville (150), Walkchalk (62), North Buffalo (73).

Industries—Gas; coal; agriculture.

Railroads—Buffalo, Rochester & Pittsburgh traverses upper basin.

GLADE RUN

Tributary to Connoquenessing Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Clinton Township, southern Butler County; elevation 1,190.

Course—Northwesterly to Connoquenessing Creek.

Mouth—Two miles northeast of Evans City; elevation 936.

Length—Twelve miles.

Drainage Area—Contains 41.4 square miles in southern Butler and northern Allegheny counties.

Topography—Rolling hills, becoming steep toward mouth.

Channel—Sinuous, through shale and sandstone formations, containing oil and gas.

Profile—Rate of fall per mile: from source to elevation 1,000, 5.5 miles, 34.5 feet; thence to mouth, 6.5 miles, 9.8 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Cooperstown (181), Glade Mills (205).

Industries—Agriculture.

Utilization—Water power for small grist mills.

GLADE RUN

Tributary to West Branch Susquehanna River.

Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Lewis Township, northern Northumberland County.

Course—Northwesterly into Lycoming County to West Branch Susquehanna River.

Mouth—Near Muncy.

Length—Seven miles.

Drainage Area—Contains 9.7 square miles in northern Northumberland and southeastern Lycoming counties.

Topography—Broken and hilly; broad valley flanked with rolling hills.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Muncy (1,904).

Industries—Agriculture.

Utilization—Water supply at Muncy.

GOOD SPRING CREEK

Tributary to Swatara Creek. Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Porter Township, southwestern Schuylkill County; elevation 1,340.

Course—Northeasterly to Donaldson; thence southeasterly to Swatara Creek.

Mouth—Near Tremont; elevation 730.

Length—Seven and one-half miles.

Drainage Area—Contains 14.8 square miles in western central Schuylkill County.

Topography—Lies in the Allegheny Mountain region; narrow valleys with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations, containing rich anthracite deposits; rough beds and steep banks.

Profile—Rate of fall, from source to mouth, 81.3 feet per mile.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Goodspring (48), Donaldson (958), Tremont (2,067).

Industries—Extensive coal mines; timber.

Pollution—Culm from coal mines.

Railroads—Philadelphia & Reading traverses basin and follows stream from source to mouth.

Utilization—Industrial supply at Good Spring Colliery. Hollenbach Run, Middle Creek and Poplar Run for water supply at mines and for domestic supply at Tremont.

GREAT TONOLOWAY CREEK

Tributary to Potomac River. Basin: Potomac.

NATURAL FEATURES

Source—In Brush Creek Township, western Fulton County.

Course—Southeasterly, by a circuitous route, into Maryland, crossing state boundary at elevation 422; thence southerly to Potomac River.

Mouth—One mile east of Hancock, Md.; elevation 391.

Length—In Pa., 19.5 miles.

Drainage Area—In Pa., 119.5 square miles in southwestern Fulton County.

Topography—Mountainous; narrow valleys flanked with steep hills, some of which rise to mountain ridges.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Locustgrove (90), Warfordsburg (110), Sipes Mill (75), Needmore (81).

Industries—Agriculture; timber.

Utilization—Water power by a few small grist mills.

GREAT TROUGH CREEK

Tributary to Raystown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Wells Township, northwestern Fulton County.

Course—Northeasterly into Huntingdon County; thence northwesterly, by a circuitous route, to Raystown Branch Juniata River.

Mouth—Near Sarah; elevation 690.

Length—Thirty miles.

Drainage Area—Contains 96.8 square miles in northwestern Fulton and southwestern Huntingdon counties.

Topography—Mountainous; narrow valley flanked with steep hills; main valley widens somewhat at junction of Little Trough Creek.

Channel—Tortuous, through shale and sandstone formations, containing deposits of bituminous coal; in a gorge, through Terrace Mountain, near mouth.

Profile—Rate of fall, from elevation 1,180 to mouth, 18 miles, 27.2 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Robertsdale (651), Cassville (165), Calvin (96), Todd (91).

Industries—Coal mines; agriculture.

Pollution—Waste from coal mines.

Railroads—East Broad Top & Coal Co. traverses basin and follows stream in upper course.

Utilization—Water supply at Robertsdale and Woodvale.

GREEN CREEK

Tributary to Fishing Creek.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Jackson Township, northern Columbia County; elevation 1,280.

Course—Southerly to Fishing Creek.

Mouth—Near Orangeville; elevation 565.

Length—Eleven and one-half miles.

Drainage Area—Contains 37.2 square miles in northern central Columbia County.

Topography—Rough and hilly; narrow valley flanked with steep, high hills.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from source to elevation 600, 8 miles, 85 feet; thence to mouth, 3.5 miles, 10 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Rohrsburg (200).

Industries—Agriculture.

HAGERMAN RUN

Tributary to West Branch Susquehanna River.

Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Armstrong Township, southern central Lycoming County.

Course—Northwesterly to West Branch Susquehanna River.

Mouth—At South Williamsport.

Length—Four and one-half miles.

Drainage Area—Contains 11.1 square miles in southern central Lycoming County.

Topography—Mountainous in headwaters; stream cuts through Bald Eagle Ridge.

Channel—Sinuous, through sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—South Williamsport (3,734).

Industries—Agriculture.

Utilization—Water supply at Williamsport and South Williamsport by Williamsport Water Co.

HALF MOON RUN

Tributary to Spruce Creek. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Half Moon Township, southern Center County.

Course—Southerly, by a circuitous route, into Huntingdon County to Spruce Creek.

Mouth—At Pennsylvania Furnace.

Length—Ten and one-half miles.

Drainage Area—Contains 27.9 square miles in southern Center and northern Huntingdon counties.

Topography—Mountainous; narrow valley flanked with steep, high hills; well wooded.

Channel—Sinuous, through limestone formation, containing iron ore.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Stormstown (268), Loveville (134), Pennsylvania Furnace (263).

Industries—Agriculture; iron ore; furnaces.

Railroads—Pennsylvania traverses basin and follows stream in lower course.

HALL RUN

Tributary to West Branch Susquehanna River.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Noyes Township, western central Clinton County.

Course—Northwesterly to West Branch Susquehanna River.

Mouth—Two miles west of Renovo.

Length—Six and one-half miles.

Drainage Area—Contains 11.2 square miles in western central Clinton County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Timber.

Utilization—Water supply at South Renovo.

HAMMER CREEK

Tributary to Cocalico Creek. Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Buffalo Spring Run and West Branch Hammer Creek, in Heidelberg Township, southeastern Lebanon County; elevation 463.

Course—Southerly into Lancaster County; thence southeasterly to Cocalico Creek.

Mouth—At Millway; elevation 306.

Length—Fourteen miles.

Drainage Area—Contains 35.8 square miles in southeastern Lebanon and northern Lancaster counties.

Topography—Broken and hilly in upper basin; rolling agricultural country in lower basin; narrow main valley flanked with steep hills in middle basin, through South Mountain.

Channel—Sinuous, through sandstone in upper course and limestone in lower course.

Profile—Rate of fall, from source to mouth, 11.2 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Schaefferstown (950), Lexington (346), Brunnerville (370), Millway (127).

Industries—Cigar factories; collar and cuff factories; agriculture.

Utilization—West Branch for water supply at Lebanon, main stream being used for auxiliary supply. Water power for several small mills.

HAMMERSLEY FORK

Tributary to Kettle Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Oleona Township, southern Potter County.

Course—Southerly into Clinton County to Kettle Creek.

Mouth—Two miles northeast of Hammersley Fork village.

Length—Ten miles.

Drainage Area—Contains 32.4 square miles in southern Potter and northwestern Clinton counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

HAMMOND CREEK

Tributary to Seely Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Jackson Township, northeastern Tioga County; elevation 1,740.

Course—Easterly into Bradford County to Seely Creek.

Mouth—Just south of New York boundary, northwestern Bradford County.

Length—Eight and one-half miles.

Drainage Area—In Pa., 26.0 square miles in northeastern Tioga and northwestern Bradford counties.

Topography—Rough and hilly; valley flanked with steep hills, rounded by glacial action.

Channel—Sinuous, through shale and sandstone formations; bordered with alluvial flood plains.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Trowbridge (66), Millerton (421).

Industries—Agriculture.

Railroads—Erie traverses basin and follows stream in lower course.

HARVEY CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—Harvey Lake, in Lake Township, northwestern Luzerne County; elevation 1,226.

Course—Southerly to North Branch Susquehanna River.

Mouth—At West Nanticoke; elevation 511.

Length—Thirteen and one-half miles.

Drainage Area—Contains 47.8 square miles in northwestern Luzerne County.

Topography—Broken and hilly country containing swamps and lakes of glacial origin; main stream cuts through mountain range in lower course.

Channel—Sinuous, through shale and sandstone formations; bordered by swamps and marshes in upper course; through a gorge in lower course.

Profile—Rate of fall per mile: from source to elevation 900, 9.5 miles, 34.3 feet; thence to mouth, 4 miles, 97.2 feet.

Lakes—Harvey Lake (658.6 acres).

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Laketon (73), Alderson (386), Shawanese (150), Pikes Creek (76), Ceases Mills (55), West Nanticoke (300).

Industries—Agriculture; summer resort.

Utilization—Main stream and Pike Creek by Spring Brook Water Supply Co. at Nanticoke, West Nanticoke, Glenlyon and Plymouth.

HAY CREEK

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Robeson Township, southern Berks County; elevation 840.

Course—Northeasterly to Schuylkill River.

Mouth—At Birdsboro; elevation 160.

Length—Eleven miles.

Drainage Area—Contains 22.0 square miles in southern Berks County.

Topography—Broken and hilly; in upper basin, for a 3-mile stretch, main valley is wide bottom land, below which it becomes narrow and is flanked with steep, high hills.

Channel—Sinuous, through red shale and sandstone formations, containing intrusions of trap rock.

Profile—Rate of fall per mile: from source to elevation 400, 3.5 miles, 125.7 feet; thence to mouth, 7.5 miles, 32 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Geigers Mills (315), Scarlets Mill (125), Birdsboro (2,930).

Industries—Quarries; foundry; machine shop; shoe and hose factories.

Railroads—Philadelphia & Reading traverses basin and follows stream from Scarlets Mill to mouth.

Utilization—Industrial supply at Birdsboro; water power by a few grist mills. Stimsons Run and Indian Run for water supply at Birdsboro.

HEMLOCK CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Washington Township, northern Clarion County.

Course—Northwesterly, through Forest County, into Venango County to Allegheny River.

Mouth—At President.

Length—Ten and one-half miles.

Drainage Area—Contains 43.8 square miles, embracing portions of Clarion, Forest and Venango counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations, containing some oil and gas.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Fryburg (400), Strobleton (47), President (45).

Industries—Agriculture; oil and gas; timber.

HENDRICKS RUN

Tributary to Tub Mill Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Fairfield Township, eastern Westmoreland County.

Course—Northerly to Tub Mill Creek.

Mouth—At Covodeville.

Length—Eight miles.

Drainage Area—Contains 33.4 square miles in eastern Westmoreland County.

Topography—Mountainous.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Fort Palmer (28), West Fairfield (238).

Industries—Agriculture.

HICKORY (EAST) CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—Formed by junction of West Branch and Middle Branch, in Limestone Township, southern Warren County.

Course—Southwesterly into Forest County to Allegheny River.

Mouth—At East Hickory.

Length—Eight miles.

Drainage Area—Contains 59.2 square miles in southern Warren and northern Forest counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; densely wooded country.

Channel—Sinuous, through shale and sandstone formations, containing some gas.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Endeavor (247), East Hickory (295).

Industries—Extensive timber; agriculture.

Railroads—Hickory Valley traverses basin and follows stream in lower course.

HICKS RUN

Tributary to Bennett Branch.
Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Benzinger Township, eastern Elk County.

Course—Southeasterly, crossing southwestern corner of Cameron County and re-entering Elk County; thence continuing southeasterly into Cameron County to Bennett Branch Sinnemahoning Creek.

Mouth—Near Miller.

Length—Twelve miles.

Drainage Area—Contains 28.6 square miles in southeastern Elk and western Cameron counties.

Topography—Rough and hilly; narrow valley flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Coal mines; timber; agriculture.

Railroads—Hicks Run follows stream in lower course.

HILL VALLEY CREEK

Tributary to Juniata River. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In Shirley Township, eastern central Huntingdon County.

Course—Northeasterly to Juniata River.

Mouth—Near Mt. Union.

Length—Seven miles.

Drainage Area—Contains 14.4 square miles in eastern central Huntingdon County.

Topography—Mountainous; narrow valley flanked by parallel ridges.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Norrace (31), Mt. Union (3,338).

Industries—Agriculture; tannery; brick works.

Utilization—Singers Gap Run, in conjunction with Jacks Spring Run, a tributary of Juniata River, for water supply at Mt. Union.

HOKENDAUQUA CREEK

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Moore Township, western Northampton County.

Course—Southwesterly and southerly to Lehigh River.

Mouth—At Stemton; elevation 282.

Length—Fifteen miles.

Drainage Area—Contains 42.6 square miles in western Northampton County.

Topography—Rolling agricultural country.

Channel—Tortuous, through slate and limestone formations.

Profile—Rate of fall, from elevation 500 to mouth, 9 miles, 24.2 feet per mile.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Klecknersville (250), Kreidersville (175), Siegfried (2,050), Northampton (8,729).

Industries—Cement works; slate quarries; iron works; flour mill; agriculture.

Utilization—Industrial supply by Atlas Portland Cement Co. at Northampton. Water power for several small mills.

HORTON CREEK

Tributary to Tunkhannock Creek.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Brooklyn Township, southern Susquehanna County.

Course—Southerly into Wyoming County to Tunkhannock Creek.

Mouth—Near Nicholson.

Length—Ten miles.

Drainage Area—Contains 17.1 square miles in southern Susquehanna and northeastern Wyoming counties.

Topography—Rough and hilly; narrow valley flanked with steep hills rounded by glacial action.

Channel—Sinuous, through sandstone formation and glacial drift.

Lakes—Lord Pond (32.0 acres), Lakeside Pond (49.9 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Lindaville (46), Lathrop (33).

Industries—Quarries; sawmill; agriculture.

Utilization—Water supply at Nicholson.

HUNLOCK CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Lehman Township, northwestern Luzerne County; elevation 1,100.

Course—Southeasterly to North Branch Susquehanna River.

Mouth—At Hunlock Creek; elevation 505.

Length—Seven and one-half miles.

Drainage Area—Contains 31.3 square miles in northwestern Luzerne County.

Topography—Rough and hilly country containing swamps and lakes of glacial origin; main stream cuts through mountain range in lower course.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall, from source to mouth, 79.3 feet per mile.

Lakes—North Pond (24.5 acres), South Pond (81.2 acres), Three Cornered Pond (74.3 acres).

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sweet Valley (190), Silkworth (24), Hunlock Creek (310).

Industries—Agriculture.

HUNTINGTON CREEK

Tributary to Fishing Creek.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In North Mountain, Lake Township, northwestern Luzerne County; elevation 2,000.

Course—Southwesterly into Columbia County to Fishing Creek.

Mouth—At Forks; elevation 604.

Length—Twenty-six and one-half miles.

Drainage Area—Contains 117.9 square miles, embracing portions of Luzerne, Sullivan and Columbia counties.

Topography—Broken, mountainous country; main valley flanked with steep hills; wide bottom lands in some places, principally in lower course; some lakes and swamps of glacial origin in headwaters; terminal moraine traverses basin.

Channel—Sinuous, through shale and sandstone formations; bordered with alluvial flood plains.

Profile—Rate of fall per mile: from elevation 1,400 to Kitchen Creek, elevation 815, 11.5 miles, 50.9 feet; thence to Pine Creek, elevation 670, 11 miles, 13.2 feet; thence to mouth, 3.5 miles, 18.9 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Rittenhouse (28), Harveyville (230), Register (150), Cambria (213), Huntington Mills (229), Waterton (80), New Columbus (175), Fishing Creek (205), Forks (60).

Industries—Paper mills; agriculture.

Utilization—Water power by a few small grist mills and a paper mill.

HUNTS RUN

Tributary to Driftwood Branch.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Portage Township, southwestern Potter County.

Course—Southeasterly into Cameron County; thence southwesterly to Driftwood Branch Sinnemahoning Creek.

Mouth—At Cameron.

Length—Nine and one-half miles.

Drainage Area—Contains 30.1 square miles in southwestern Potter and northeastern Cameron counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Cameron (262).

Industries—Timber; agriculture.

HYNER CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Chapman Township, northern Clinton County.

Course—Southwesterly to West Branch Susquehanna River.

Mouth—At Hyner.

Length—Eight and one-half miles.

Drainage Area—Contains 25.6 square miles in northern Clinton County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Hyner (219).

Industries—Agriculture.

INDIAN CREEK

Tributary to Youghiogheny River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Donegal Township, southeastern Westmoreland County.

Course—Southwesterly into Fayette County to Youghiogheny River.

Mouth—At Indian Creek.

Length—Twenty-three miles.

Drainage Area—Contains 125.7 square miles in southeastern Westmoreland and northeastern Fayette counties.

Topography—Mountainous; main valley lies between mountain ridges, upper reaches being open, hilly country; lower valley becomes gorge-like for last 5 miles; heavily wooded on ridge slopes.

Channel—Sinuous, through shale and sandstone formations containing coal.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Kregar (73), Jones Mills (120), Normalville (165), Mill Run (150).

Industries—Timber; agriculture; small coal and iron ore mines.

Utilization—Industrial supply for Pennsylvania Railroad; municipal and private supply for several towns.

IRISH CREEK

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Penn Township, northwestern Berks County; elevation 500.

Course—Southeasterly, by a circuitous route, to Schuylkill River.

Mouth—At Dauberville; elevation 265.

Length—Eight and one-half miles.

Drainage Area—Contains 25.1 square miles in northwestern Berks County.

Topography—Broken, hilly country just south of Allegheny Mountain region; narrow valley flanked with steep hills.

Channel—Sinuous, through slate formation with some limestone in lower basin.

Profile—Rate of fall per mile: from source to elevation 400, 1 mile, 100 feet; thence to mouth, 7.5 miles, 18 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Scullhill (64), Centerport (111), Dauberville (118).

Industries—Agriculture; cigar factories.

Utilization—Water power for a small grist mill at Centerport.

ISER RUN (or TOWNLINE RUN)

Tributary to Casselman River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Elklick Township, southern Somerset County.

Course—Northwesterly to Casselman River.

Mouth—Near Markleton.

Length—Five miles.

Drainage Area—Contains 12.9 square miles in southwestern Somerset County.

Topography—Broken, hilly country; narrow valley, cutting through well wooded ridges.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Utilization—Main stream for water supply for a sanitarium at Markleton. Sand Run, a small tributary of Laurel Run, in conjunction with Evans Run, a small tributary of Casselman River just south of Rockwood, for water supply at Rockwood.

JACKS CREEK

Tributary to Juniata River. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In West Beaver Township, western Snyder County.

Course—Southerly into Mifflin County; thence southwesterly to Juniata River.

Mouth—One mile southeast of Lewistown.

Length—Nineteen and one-half miles.

Drainage Area—Contains 56.8 square miles in western Snyder and northeastern Mifflin counties.

Topography—Mountainous; main basin lies in rolling country at foot of range to southeast.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Bannerville (78), Wagner (158), Paintersville (129), Maitland (159).

Industries—Agriculture.

Railroads—Pennsylvania traverses basin and follows stream in middle course.

Utilization—Water power for a few small mills.

JACKS RUN

Tributary to Sewickley Creek. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Hempfield Township, central Westmoreland County, 3 miles northeast of Greensburg; elevation 1,160.

Course—Southwesterly, through Greensburg, to Sewickley Creek.

Mouth—Near Foxtown; elevation 943.

Length—Ten miles.

Drainage Area—Contains 29.0 square miles in central Westmoreland County.

Topography—Rolling hills; wide main valley flanked with gently sloping hills.

Channel—Sinuous, through wide flats.

Profile—Rate of fall per mile: from source to Greensburg, elevation 1,000, 4 miles, 40 feet; thence to mouth, 6 miles, 9.5 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Greensburg (13,012).

Industries—Extensive coal mining and coking; agriculture.

Pollution—Considerable waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream from Greensburg to mouth.

Utilization—Water supply at coal mines and coke ovens.

JACKSON RUN

Tributary to Conewango Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Sugar Grove Township, northern Warren County.

Course—Southeasterly to Conewango Creek.

Mouth—At North Warren; elevation 1,186.

Length—Fifteen and one-half miles.

Drainage Area—Contains 31.0 square miles in northern central Warren County.

Topography—Broken and hilly; main valley is wide, flanked with rolling hills.

Channel—Sinuous, through shale and sandstone formations; bordered with alluvial flood plains in lower course.

Profile—Rate of fall, from elevation 1,400 to mouth, 7 miles, 30.6 feet per mile.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Chandlers Valley (200), North Warren (503).

Industries—Timber; agriculture.

JACOBS CREEK

Tributary to Youghiogheny River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Bullskin Township, northeastern Fayette County, near Westmoreland-Fayette county boundary.

Course—Northeasterly into Westmoreland County; thence westerly to Youghiogheny River, forming Westmoreland-Fayette county boundary from Laurelville to mouth.

Mouth—At Jacobs Creek; elevation 775.

Length—Thirty-one miles.

Drainage Area—Contains 94.9 square miles in southern Westmoreland and northern Fayette counties.

Topography—Mountainous at headwaters; rolling hills in middle basin, with broad, main valley containing swamps; lower basin has narrow valley flanked with steep hills, 400 to 500 feet high.

Channel—Tortuous, through shale and sandstone formations, containing rich coal beds; swamps and flats in middle basin; gorge-like valley in lower basin.

Profile—Rate of fall per mile: from elevations 1,060 to 1,020, 6 miles, 6.7 feet; thence to elevation 1,000, 8 miles, 2.5 feet; thence to mouth, 7 miles, 32.1 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Mt. Pleasant (5,812), Stauffer (593), Scottdale (5,456), Everson (1,759), Jacobs Creek (200).

Industries—Extensive coal mining and coking; agriculture.

Pollution—Considerable waste from coal mines.

Railroads—Baltimore & Ohio and Pennsylvania traverse basin and follow stream in middle course.

Utilization—Main stream for water supply at Mt. Pleasant and vicinity. Greenlick Creek for water supply at Scottdale.

JOHNSON CREEK

Tributary to Wysox Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Pike Township, northeastern Bradford County.

Course—Southwesterly to Wysox Creek.

Mouth—Opposite Wickizer.

Length—Eleven and one-half miles.

Drainage Area—Contains 27.1 square miles in northeastern Bradford County.

Topography—Rough and hilly; narrow valley flanked with steep hills, rounded by glacial action. A few small ponds and swamps at headwaters.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Potterville (131), Allis Hollow (45).

Industries—Agriculture.

JORDAN CREEK

Tributary to Little Lehigh Creek. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—On southern slope of Blue Mountain, Heidelberg Township, Lehigh County; elevation 740.

Course—Southeasterly to Little Lehigh Creek.

Mouth—At Allentown; elevation 228.

Length—Thirty-two miles.

Drainage Area—Contains 81.0 square miles in central Lehigh County.

Topography—Broken, hilly country in upper basin, with narrow, steep-sided valley from Jordan to Kernsville; thence to mouth country is of a rolling nature with broad main valley.

Channel—Tortuous, through slate in upper basin and limestone in lower basin.

Profile—Rate of fall per mile: from source to elevation 600, 3 miles, 46.7 feet; thence to elevation 400, 11.5 miles, 17.4 feet; thence to mouth, 17.5 miles, 9.8 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Jordan Valley (50), Germansville (170), Jordan (120), Lowhill (50), Weidasville (58), Seipstown (176), Siegersville (225), Orefield (220), Stetlersville (116), Allentown (51,913).

Industries—Agriculture; textile factories; steel mills; foundry; furniture factory; planing mill.

Railroads—Philadelphia & Reading and Lehigh Valley traverse basin.

JUNIATA (LITTLE) CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Center Township, central Perry County; elevation 760.

Course—Southeasterly, by a circuitous route, to Susquehanna River.

Mouth—At Duncannon; elevation 332.

Length—Fifteen and one-half miles.

Drainage Area—Contains 30.8 square miles in central Perry County.

Topography—Broken, mountainous country; narrow main valley winds between and through short ridges.

Channel—Sinuous, through shale, sandstone and limestone formations.

Profile—Rate of fall, from source to mouth, 27.6 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—New Bloomfield (762), Duncannon (1,474).

Industries—Iron and novelty works; shirt factory; agriculture.

Railroads—Susquehanna River & Western follows stream from source to mouth.

Utilization—Water power for small mills.

JUNIATA RIVER

Tributary to Susquehanna River. Basin: Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Raystown and Frankstown branches in Huntingdon County, 3.5 miles southeast of Huntingdon.

Course—Easterly, by a circuitous route, through Mifflin, Juniata and Perry counties, to Susquehanna River, forming Huntingdon-Mifflin county boundary for 5.5 miles.

Mouth—At Juniata Bridge; elevation 334.

Length—Eighty-six miles.

Drainage Area—Contains 3,426 square miles, embracing portions of Somerset, Bedford, Fulton, Franklin, Cambria, Blair, Huntingdon, Center, Mifflin, Juniata, Snyder and Perry counties.

Topography—Basin lies wholly within Allegheny Mountain region; a series of parallel ridges lying in a northeasterly-southwesterly direction traverse basin, having rolling agricultural valleys below the steep slopes. Main valley is narrow, being made up of troughs between parallel ridges and gaps where stream has cut through on its easterly course.

Geology—Shale and sandstone formations, principally on the higher areas, and large limestone areas in valleys.

Channel—Tortuous in places, with rocky bed and high, steep banks which rise abruptly from water, permitting little bottom land to be overflowed during freshets.

Profile—Rate of fall, from Thompsontown Station, elevation 387, to mouth, 23 miles, 2.3 feet per mile.

Springs—The limestone regions in basin contain many springs which sustain the flow of streams in dry weather. Mineral springs are found in vicinity of Bedford.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Newport, March 1899; discontinued July 1906; re-established January 1907.

Precipitation—Mean annual, 35 to 50 inches.

NATURAL RESOURCES

Agriculture—This is the principal industry, and is developed extensively in most of the valleys.

Minerals—Bituminous coal deposits are found in Broad Top Mountain in Bedford and Huntingdon counties, while small deposits of iron ore are scattered throughout basin.

Timber—The ridges and steep slopes are well wooded throughout, there being a State Forest Reserve in Mifflin County, on headwaters of Kishacoquillas Creek.

Water Power—Several projects have been proposed in addition to existing hydroelectric plants at Warrior Ridge on Frankstown Branch, at Hawns Bridge on Raystown Branch and at Yeagertown on Kishacoquillas Creek.

ARTIFICIAL FEATURES

Towns—Altoona (52,127), Tyrone (7,176), Huntingdon (6,861), Mt. Union (3,338), Lewistown (8,166), Mifflintown (954), Newport (2,009).

Industries—Coal mines; iron ore mines; quarries; steel works; brick works; glass works; agriculture.

Railroads—Pennsylvania traverses basin and follows stream from source to mouth; Huntingdon & Broad Top Mountain and several others traverse basin.

Utilization—Domestic, industrial and railroad supply; industrial supply by Elk Tanning Co. at Newport. Tributaries for water supply at many places. The old Pennsylvania Canal extended from Hollidaysburg to mouth of main stream.

JUNIATA (LITTLE) RIVER

Tributary to Frankstown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Logan Township, western Blair County.

Course—Southeasterly to Altoona; thence northeasterly to Tyrone; thence southeasterly into Huntingdon County to Frankstown Branch Juniata River, forming Blair-Huntingdon county boundary for 5 miles.

Mouth—One mile west of Petersburg.

Length—Thirty-eight and one-half miles.

Drainage Area—Contains 348.9 square miles, embracing portions of Cambria, Blair, Center and Huntingdon counties.

Topography—Mountainous; main valley flanked with ridges above Tyrone, below which point stream cuts through mountain ranges in several places and is bordered with rich agricultural lands.

Geology—Shale, sandstone and limestone formations, containing some iron ore and mineral springs.

Channel—Sinuous, through rough, mountainous country, and having rapid fall.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Altoona (52,127), Juniata (5,285), Bellwood (227), Tyrone (7,176), Birmingham (196), Spruce Creek (213), Warriors Mark (400).

Industries—Planing mill; foundry; railroad shops; agriculture.

Railroads—Pennsylvania traverses basin and follows stream from Altoona to mouth; Altoona, Juniata & Northern follows stream from source to Altoona.

Utilization—Main stream, Kettle Creek and Tipton Run for Pennsylvania Railroad water supply; Bells Gap Run for water supply at Bellwood; Homers Gap Run for water supply at Juniata. Main stream for water power by a few small grist mills and sawmills.

KEASEY RUN

Tributary to Conodoguinet Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Letterkenny Township, northern central Franklin County.

Course—Northeasterly, by a circuitous route, to Conodoguinet Creek.

Mouth—Near Mongul.

Length—Twelve miles.

Drainage Area—Contains 36.2 square miles in northern central Franklin County.

Topography—Basin lies within broad, fertile Cumberland Valley; broad main valley flanked with rolling agricultural land.

Channel—Sinuous, through shale, some sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Upper Strasburg (326), Pleasant Hall (108), Orrstown (247).

Industries—Agriculture; timber; antique furniture factory.

KERSEY RUN

Tributary to Bennett Branch.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Fox Township, southern Elk County.

Course—Southeasterly to Bennett Branch Sinnemahoning Creek.

Mouth—Opposite Weedville.

Length—Seven miles.

Drainage Area—Contains 27.1 square miles in southern Elk County.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Coal mines.

Pollution—Waste from coal mines.

Railroads—Pittsburgh, Shawmut & Northern follows stream from source to mouth.

Utilization—Small tributary for water supply at Byrnedale.

KETTLE CREEK

Tributary to West Branch Susquehanna River.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Elk Township, southwestern Tioga County.

Course—Southwesterly, through Potter County, into Clinton County; thence southerly, by a circuitous route, to West Branch Susquehanna River.

Mouth—At Westport.

Length—Forty-one and one-half miles.

Drainage Area—Contains 239.5 square miles, embracing portions of Tioga, Potter, Cameron and Clinton counties.

Topography—Rough and hilly country of the Allegheny Plateau; narrow valleys flanked with steep hills; well wooded in upper basin.

Geology—Shale and sandstone formations, containing coal.

Channel—Sinuous, through a narrow valley, over gravel bed with rock ledges and steep banks.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Leidy, December 1913.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Germania (486), Cross Fork (736), Hammersley Fork (143), Leidy (74), Westport (276).

Industries—Coal mines; timber; tanneries; agriculture.

Railroads—Buffalo & Susquehanna traverses upper basin; Oleona follows stream in upper course.

KINGS CREEK

Tributary to Ohio River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Hanover Township, northwestern Washington County; elevation 1,150.

Course—Southwesterly into West Virginia, crossing state boundary at elevation 830; thence northwesterly to Ohio River.

Mouth—At Kings Creek, W. Va.

Length—In Pa., 7 miles.

Drainage Area—In Pa., 30.7 square miles in southwestern Beaver and northwestern Washington counties.

Topography—Hilly; valleys flanked with steep hills 300 to 400 feet high.

Channel—Sinuous, through clay and sandstone.

Profile—Rate of fall, from source to state boundary, 45.7 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Coal mines; oil; agriculture.

Plate IX

Kinzua Creek

KINZUA CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Keating Township, central McKean County.

Course—Southwesterly to near Mt. Jewett; thence northwesterly into Warren County to Allegheny River.

Mouth—Near Kinzua.

Length—Thirty-four miles.

Drainage Area—Contains 181.8 square miles in western McKean and eastern Warren counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; main valley contains some rolling agricultural land in lower basin; densely wooded country.

Channel—Sinuous, through shale and sandstone formations containing oil.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Dewdrop, October 1909; discontinued November 1911; re-established July 1912.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Mt. Alton (311), Kushequa (287), Mt. Jewett (1,771), Kane (6,626), Westline (207), Kinzua (732).

Industries—Oil fields; timber; agriculture.

Pollution—Waste from oil wells.

Railroads—Pennsylvania traverses basin and follows stream from Westline to mouth; Valley follows stream from Kushequa to Westline; Mount Jewett, Kinzua & Riterville follows stream in headwaters; Buffalo, Rochester & Pittsburgh and Erie traverse upper basin.

Utilization—Main stream for Pennsylvania Railroad water supply at Kinzua. Tributary of South Branch for water supply at Kane.

KINZUA CREEK, SOUTH BRANCH

Tributary to Kinzua Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Hamlin Township, southwestern McKean County.

Course—Westerly and northwesterly to Kinzua Creek.

Mouth—Near Root Run.

Length—Twelve miles.

Drainage Area—Contains 38.0 square miles in southwestern McKean County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; densely wooded country.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Kane (6,626).

Industries—Oil and gas fields; timber; agriculture.

Utilization—Hubert Run for water supply at Kane.

KISHACOQUILLAS CREEK

Tributary to Juniata River. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—Formed by junction of East Branch and West Branch, in Brown Township, central Mifflin County.

Course—Southeasterly to Juniata River.

Mouth—At Lewistown.

Length—Five and one-half miles.

Drainage Area—Contains 194.9 square miles in southeastern Center and northern Mifflin counties.

Topography—Mountainous; broad main basin between two parallel ridges, having well wooded slopes. State Forest Reserve in basin of East Branch.

Channel—Sinuous, through shale, sandstone and limestone formations.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Kulps, August 1911.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Milroy (1,000), Naginey (100), Belleville (1,000), Yeagertown (601), Allensville (338), Reedsville (900), Burnham (585), Lewistown (8,166).

Industries—Silk and knitting mills; planing mills; flour mills; steel mills; locomotive works; agriculture.

Railroads—Pennsylvania traverses basin and follows stream from source to mouth; Kishacoquillas Valley traverses basin.

Utilization—Industrial supply at Reedsville. Tributaries for water supply at Milroy, Reedsville, Yeagertown, Burnham and Lewistown. Hydroelectric plant at Yeagertown. Water power by numerous grist and flour mills.

KISHACOQUILLAS CREEK, EAST BRANCH (or LANCASTER CREEK)

Tributary to Kishacoquillas Creek. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—Formed by junction of Honey Creek and Treaster Valley Run, in Armagh Township, northeastern Mifflin County.

Course—Southwesterly to Kishacoquillas Creek.

Mouth—Near Reedsville.

Length—Seven miles.

Drainage Area—Contains 108.0 square miles in southeastern Center and northeastern Mifflin counties.

Topography—Mountainous; broad main basin between two parallel ridges; rich agricultural valley. State Forest Reserve in upper basin.

Channel—Sinuous, through shale, sandstone and limestone formations; main basin principally limestone valley, where streams flow underground in places.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Milroy (1,000), Naginey (100), Reedsville (900).

Industries—Agriculture; limestone quarries.

Railroads—Pennsylvania traverses basin and follows stream from Naginey to mouth.

Utilization—Tributaries for water supply at Milroy, Reedsville, Yeagertown, Burnham and Lewistown.

KISHACOQUILLAS CREEK, WEST BRANCH

Tributary to Kishacoquillas Creek. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In Menno Township, western Mifflin County.

Course—Northeasterly to Kishacoquillas Creek.

Mouth—Near Reedsville.

Length—Sixteen miles.

Drainage Area—Contains 61.1 square miles in western Mifflin County.

Topography—Mountainous; narrow valley flanked with steep, high hills; well wooded.

Channel—Sinuous, through shale, sandstone and limestone formations, containing many springs.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Belleville (1,000), Allensville (338), Kishacoquillas (112).

Industries—Agriculture.

Railroads—Kishacoquillas Valley follows stream from Belleville to mouth.

Utilization—A tributary for water supply at Belleville. Water power for a few small mills.

KISKIMINITAS RIVER (INCLUDING CONEMAUGH RIVER)

Tributary to Allegheny River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Introduction—The Conemaugh River extends from Johnstown to Saltsburg; thence to Allegheny River it is called Kiskiminitas River. In the following description the two streams are considered as one.

Source—Formed by junction of Little Conemaugh River and Stony Creek at Johnstown, southwestern Cambria County; elevation 1,150.

Course—Northwesterly to Allegheny River, forming southern boundaries of Armstrong and Indiana counties and northern boundary of Westmoreland County.

Mouth—Opposite Freeport; elevation 737.

Length—Total, 78 miles. Conemaugh River, 51 miles; Kiskiminitas River, 27 miles.

Drainage Area—Contains 1,891.5 square miles, embracing portions of Cambria, Somerset, Indiana, Westmoreland and Armstrong counties, being the largest and most important tributary of the Allegheny River. Conemaugh River, above Saltsburg, has a drainage area of 1,375.7 square miles.

Topography—Varies from a high, gently rolling plateau at headwaters, the elevations ranging up to 2,800 feet, to a low dissected region less than 1,100 feet in elevation, marked by narrow, steep-sided valleys, and with high intervening ranges of mountains, through which some of the streams have cut narrow gorges.

Geology—Shale and sandstone formations, containing rich deposits of bituminous coal, and some gas and limestone.

Channel—Tortuous, through the shale and sandstone strata, which form steep banks, being gorge-like in many places, notably near Johnstown and between Avonmore and Vandergrift in lower basin. Bordered in places with alluvial flood plains, upon which many thriving towns are located.

Profile—Rate of fall per mile: from Johnstown to junction of Blacklick Creek, elevation 894, 34.5 miles, 7.4 feet; thence to junction of Loyalhanna Creek, elevation 828, 16.5 miles, 4 feet; thence to mouth, 27 miles, 3.4 feet.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Avonmore, May 1907.

Precipitation—Mean annual, 35 to 55 inches.

NATURAL RESOURCES

Agriculture—Developed extensively, principally in western portion of basin and on north side of main valley.

Minerals—Rich deposits of bituminous coal underlie nearly the whole basin, probably the only place where they are conspicuously absent being along the Laurel Ridge anticlinal. Some gas and limestone are found.

Timber—While the valleys are largely deforested on the lower slopes, about 37 per cent of the basin is wooded, mostly along the crests of three ridges, viz: Chestnut Ridge, which crosses northeasterly, practically ending as a well defined ridge just east of Blairsville; Laurel Ridge, paralleling Chestnut Ridge, with elevations reaching 2,700 feet, crossing about 4 miles west of Johnstown; and lastly the Allegheny Mountain, reaching elevations of nearly 3,000 feet and forming the watershed above the head branches.

Water Power—On account of the valuable coal deposits in most available storage sites, this resource is unimportant.

ARTIFICIAL FEATURES

Towns—East Conemaugh (5,046), South Fork (4,592), Windber (8,013), Johnstown (55,482), Blairsville (3,572), Indiana (5,749), Saltsburg (1,044), Latrobe (8,777), Avonmore (1,262), Apollo (3,006), Vandergrift (3,876), Leechburg (3,624).

Industries—Extensive coal mines; Cambria Steel Co., at Johnstown; railroad towns; plate glass works; sheet and tin mills; timber; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream from Johnstown to mouth; Buffalo, Rochester & Pittsburgh, Baltimore & Ohio, Ligonier Valley and Pittsburgh, Westmoreland & Somerset traverse basin.

Utilization—Main stream for water supply at Johnstown, Blairsville and Saltsburg. Many tributaries are used for domestic and industrial supply, especially in the coal mining districts. St. Clair Run by Johnstown Water Co.; Little Sugar Run and Big Spring Run by High Ridge Water Supply Co. (P. R. R.); Strayer Run, a tributary of St. Clair Run, by Morrellville and Cambria Boro Water Co.

KITCHEN CREEK

Tributary to Huntington Creek.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—Ganoga Lake, in Colley Township, southeastern Sullivan County.

Course—Southeasterly into Luzerne County to Huntington Creek.

Mouth—One mile northeast of Harveyville; elevation 815.

Length—Eleven miles.

Drainage Area—Contains 24.5 square miles in southeastern Sullivan and northwestern Luzerne counties.

Topography—Mountainous in headwaters, containing lakes and swamps and stands of virgin timber; main basin is rough and hilly.

Channel—Sinuous, through shale and sandstone formations.

Lakes—Ganoga Lake (78.8 acres), Lake Jean (296.0 acres), Lake Leigh (137.0 acres), Lake Rose (47.0 acres).

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Redrock (27).

Industries—Agriculture.

KNAPP CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Foster Township, northern McKean County.

Course—Northeasterly to Allegheny River.

Mouth—Opposite Eldred.

Length—Eight and one-half miles.

Drainage Area—Contains 28.4 square miles in northern McKean County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations, containing oil.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Rixford (506), Duke Center (657).

Industries—Oil; timber; agriculture.

KREUTZ CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Windsor Township, eastern central York County; elevation 800.

Course—Northeasterly to Susquehanna River.

Mouth—At Wrightsville; elevation 225.

Length—Seventeen miles.

Drainage Area—Contains 34.4 square miles in eastern York County.

Topography—Broken and hilly; main valley in vicinity of Yorkana is narrow and flanked with steep hills; from Hellam to mouth it becomes broad, rolling agricultural country.

Channel—Sinuous, through slate in upper basin; through limestone from Hellam to mouth.

Profile—Rate of fall per mile: from elevations 700 to 300, 10.5 miles, 38.1 feet; thence to mouth, 6 miles, 12.5 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Holtz (200), Yorkana (480), Hellam (472), Wrightsville (2,051).

Industries—Iron foundries; hardware and cigar factories.

Railroads—Northern Central traverses basin and follows stream from Hellam to mouth.

Utilization—Water supply at Wrightsville. Hydroelectric plant at Wrightsville.

LACKAWANNA RIVER

Tributary to North Branch Susquehanna River.
Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—Formed by junction of East and West branches, in Clifford Township, southeastern Susquehanna County; elevation 1,590.

Course—Southeasterly into Wayne County; thence southwesterly, through Lackawanna County, into Luzerne County to North Branch Susquehanna River.

Mouth—Near Pittston; elevation 542.

Length—Forty miles.

Drainage Area—Contains 346.3 square miles, embracing portions of Susquehanna, Wayne, Lackawanna and Luzerne counties.

Topography—Mountainous, main valley being bounded on west by Bald Mountain and on east by Moosic Mountain, the average width being 6 miles. Basin within glaciated area and contains many swamps, small lakes and ponds.

Geology—Shale and sandstone formations, containing rich deposits of anthracite.

Channel—Sinuous, through narrow alluvial flood plains at foot of steep hills.

Profile—Rate of fall per mile: from source to elevation 1,000, 13 miles, 45.4 feet; thence to Scranton, elevation 700, 15 miles, 20 feet; thence to mouth, 12 miles, 13.2 feet.

Lakes—Heart Lake (30.5 acres).

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Scranton, July 1908; discontinued July 1913. At Moosic, August 1913.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Forest City (5,749), Carbondale (17,040), Mayfield (3,662), Jermyn (3,158), Archbald (7,194), Blakely (5,345), Winton (5,280), Jessup (3,242), Olyphant (8,505), Dickson City (9,331), Throop (5,133), Dunmore (17,615), Scranton (129,867), Taylor (9,060), Minooka (3,100), Old Forge (11,324), Moosic (3,964), Avoca (4,634), Duryea (7,487).

Industries—Numerous coal mines; agriculture.

Pollution—Waste from coal mines

Railroads—Delaware & Hudson, Delaware, Lackawanna & Western, New York, Ontario & Western, Erie and Central Railroad of New Jersey traverse basin and follow stream.

Utilization—Water supply by Consolidated Water Co. Industrial supply at many places. The unpolluted tributaries above Scranton are used by the Scranton Gas & Water Co. for the supply of the numerous towns in this vicinity; those below Scranton, by the Spring Brook Water Supply Co. for the supply of towns in the valley below Scranton.

LACKAWANNA RIVER, EAST BRANCH

Tributary to Lackawanna River.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—Bone Pond, in Preston Township, northwestern Wayne County.

Course—Southwesterly into Susquehanna County to Lackawanna River.

Mouth—One mile south of Union Dale; elevation 1,590.

Length—Twelve miles.

Drainage Area—Contains 17.6 square miles in northwestern Wayne and southeastern Susquehanna counties.

Topography—Rough and mountainous; narrow valley flanked with steep hills; glaciated region, containing many swamps, lakes and ponds.

Channel—Sinuous, through shale and sandstone formations.

Lakes—Bone Pond (38.4 acres), Independent Pond (30.2 acres), Orson Dam (21.9 acres), Five Mile Pond (48.1 acres), Dunns Lake (94.4 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Poyntelle (53), Orson (220).

Industries—Agriculture.

Railroads—New York, Ontario & Western follows stream from headwaters to mouth and traverses upper basin.

LACKAWANNA RIVER, WEST BRANCH

Tributary to Lackawanna River.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—Ball Pond, in Ararat Township, eastern Susquehanna County.

Course—Southerly to Lackawanna River.

Mouth—One mile south of Union Dale; elevation 1,590.

Length—Nine miles.

Drainage Area—Contains 19.4 square miles in southeastern Susquehanna County.

Topography—Rough and mountainous; narrow valley flanked with steep hills; glaciated region, containing many swamps, lakes and ponds.

Channel—Sinuous, through shale and sandstone formations.

Lakes—Stockers Pond (23.2 acres), Fiddle Lake (63.1 acres), Low Lake (51.2 acres), Lewis Lake (49.9 acres), Oreonoba Lake (31.2 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Burnwood (104), Herrick Center (327), Union Dale (355).

Industries—Agriculture; ice harvesting.

Railroads—Delaware & Hudson and Erie follow stream from source to mouth.

Utilization—Water power for small mills at Union Dale.

LACKAWAXEN RIVER

Tributary to Delaware River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—Formed by junction of West Branch and Waymart Branch at Prompton, central Wayne County; elevation 1,090.

Course—Southeasterly to Hawley; thence easterly into Pike County to Delaware River.

Mouth—At Lackawaxen; elevation 595.

Length—Twenty-seven miles.

Drainage Area—Contains 602.8 square miles, embracing portions of Wayne, Lackawanna, Monroe and Pike counties.

Topography—Broken, mountainous country containing numerous small lakes, ponds and swamps; main valley narrow, flanked with steep, high hills; well wooded.

Geology—Basin lies within the glaciated area with its drift deposits over shale and sandstone formations.

Channel—Sinuous, over rocky bed, between steep banks; in a deep gorge with cascades in lower course.

Profile—Rate of fall, from source to mouth, 18.3 feet per mile.

Lakes—Elk Pond (168.4 acres), Keens Lake (86.4 acres), Lake Ladore (255.4 acres), Cadjaw Pond (89.2 acres), Bunnells Pond (46.3 acres), Huff Pond (33.8 acres), Big Tink Pond (80.0 acres), Upper Wilcox Pond (42.7 acres).

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Hawley, July 1908. At Rowland, June 1914.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Prompton (263), Waymart (412), Honesdale (2,945), White Mills (1,132), Hawley (2,018), Rowland (372), Lackawaxen (521).

Industries—Glass factories; silk mills; timber; agriculture; summer resorts; ice harvesting.

Railroads—Erie follows main stream from Honesdale to mouth and traverses basin; Delaware & Hudson from headwaters of Waymart Branch to Honesdale.

Utilization—Erie Railroad supply at West Hawley. Water power by a few mills. The old Delaware & Hudson Canal followed stream from Honesdale to mouth, and 11 large reservoirs were formed by damming lakes and used as feeders. Waymart Branch for ice harvesting by Lake Ladore Improvement Co., of Scranton.

LACKAWAXEN RIVER, WEST BRANCH

Tributary to Lackawaxen River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—Belmont Lake, in Mount Pleasant Township, northwestern Wayne County.

Course—Southeasterly to join Waymart Branch and form Lackawaxen River.

Mouth—At Prompton; elevation 1,090.

Length—Eighteen and one-half miles.

Drainage Area—Contains 62.3 square miles in western central Wayne County.

Topography—Broken, mountainous country abounding in lakes and swamps of glacial origin; well wooded.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Profile—Rate of fall per mile: from Belmont, elevation 1,800, to elevation 1,300, 7 miles, 71.4 feet; thence to mouth, 8.5 miles, 24.7 feet.

Lakes—Glass Pond No. 3 (52.0 acres), White Oak Pond (134 acres), Cramer Pond (62.0 acres), Hankins Pond (67.4 acres), Millers Pond (61.7 acres), Bigelow Lake (36.0 acres), Belmont Lake (100.2 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Pleasant Mount (350), Whites Valley (93), Aldenville (130), Prompton (263).

Industries—Agriculture; timber; state fish hatchery.

LAKE CREEK

Tributary to Sugar Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Randolph Township, southern Crawford County.

Course—Southeasterly into Venango County to Sugar Creek.

Mouth—At Cooperstown; elevation 1,120.

Length—Fifteen and one-half miles.

Drainage Area—Contains 37.8 square miles in southern Crawford and northwestern Venango counties.

Topography—Rolling hills and broad valleys; basin lies in glaciated region.

Channel—Sinuous, through ponds and swamps of glacial origin. Passes through Sugar Lake (90.1 acres) in Wayne Township, Crawford County.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Guys Mills (280), Sugar Lake (67), Cooperstown (181).

Industries—Agriculture.

LANCASTER CREEK (or EAST BRANCH KISHACOQUILLAS CREEK)

For description see East Branch Kishacoquillas Creek.

LANNINGER CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Roulette Township, western Potter County.

Course—Northerly to Allegheny River.

Mouth—One-half mile south of Roulette.

Length—Three miles.

Drainage Area—Contains 4.0 square miles in western Potter County.

Topography—Rough and hilly; narrow main valley, flanked with steep hills.

Channel—Sinuous, through sandstone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture; timber.

Utilization—Water supply at Roulette.

LARRY CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Cogan House Township, central Lycoming County.

Course—Southwesterly to West Branch Susquehanna River.

Mouth—At Larrys Creek.

Length—Twenty miles.

Drainage Area—Contains 78.8 square miles in western Lycoming County.

Topography—Rough and hilly; narrow valleys flanked with steep, wooded hills; basin lies in Allegheny Plateau region.

Channel—Sinuous, through shale and sandstone formations, entering limestone belt at mouth.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Brookside (35), Salladasburg (280), Larryville (91), Larrys Creek (283).

Industries—Timber; agriculture.

Utilization—A tributary for water supply by The Jersey Shore Water Co. at Antes Fort, Avis, Jersey Shore, Salladasburg and Larryville. Water power for a few small mills.

LAUREL CREEK

Tributary to East Branch Kishacoquillas Creek.

Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In Armagh Township, northeastern Mifflin County.

Course—Southwesterly and southeasterly to East Branch Kishacoquillas Creek.

Mouth—At Naginey.

Length—Twelve miles

Drainage Area—Contains 26.4 square miles in southeastern Center and northern Mifflin counties.

Topography—Mountainous; narrow valley flanked with steep, high hills; well wooded.

Channel—Sinuous, through shale, sandstone and limestone formations; flows underground in limestone for last mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Milroy (1,000).

Industries—Agriculture.

Railroads—Pennsylvania follows stream from Milroy to mouth.

Utilization—Water supply, in conjunction with Treaster Valley Run and Coopers Gap Run, tributaries of East Branch Kishacoquillas Creek, and Minehart Run, a tributary of Juniata River, at Lewistown and surrounding towns. Water power for small mills.

LAUREL RUN

Tributary to Bennett Branch.
Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Huston Township, northwestern Clearfield County.

Course—Northeasterly into Elk County to Bennett Branch Sinnemahoning Creek.

Mouth—At Caledonia Station.

Length—Twelve miles.

Drainage Area—Contains 36.4 square miles in northern Clearfield and southern Elk counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Coal mines; timber.

LAUREL RUN

Tributary to Sherman Creek. Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Toboyne Township, southwestern Perry County.

Course—Northeasterly to Sherman Creek.

Mouth—One mile west of Landisburg.

Length—Nineteen and one-half miles.

Drainage Area—Contains 35.6 square miles in southwestern Perry County.

Topography—Basin lies between two close, parallel ridges forming a narrow, steep-sided valley; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

LAUREL HILL CREEK

Tributary to Casselman River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Jefferson Township, western Somerset County.

Course—Northeasterly and southwesterly to Casselman River.

Mouth—At Confluence.

Length—Thirty-one miles.

Drainage Area—Contains 126.0 square miles in western Somerset and eastern Fayette counties.

Topography—Mountainous; main valley lies between two parallel ridges; well wooded.

Channel—Sinuous, through shale and sandstone formations, containing deposits of bituminous coal.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Confluence, September 1904; discontinued August 1913. At Ursina, August 1913.

Precipitation—Mean annual, 40 to 55 inches.

ARTIFICIAL FEATURES

Towns—Bakersville (103), Ursina (338), Confluence (890).

Industries—Timber; agriculture; coal mines.

Pollution—Some mine waste at Humbert, 6 miles above mouth.

Railroads—Baltimore & Ohio follows stream in lower course.

Utilization—Private water supply at Humbert; auxiliary supply at Confluence; railroad water supply at Humbert.

LEBOEUF CREEK

Tributary to French Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Summit Township, central Erie County.

Course—Northeasterly and southeasterly to French Creek.

Mouth—Two miles south of Waterford.

Length—Fourteen miles.

Drainage Area—Contains 61.7 square miles in central Erie County.

Topography—Rolling agricultural country with broad valleys; basin within the glaciated region.

Channel—Tortuous, through shale formations and glacial deposits; bordered with swamps and flatlands.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Westgreene (116), Waterford (724).

Industries—Agriculture.

Railroads—Pennsylvania traverses basin and follows stream in middle course.

LEHIGH (LITTLE) CREEK

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Topton Mountain, Longswamp Township, Berks County; elevation 830.

Course—Northeasterly into Lehigh County to Lehigh River.

Mouth—At Allentown; elevation 225.

Length—Twenty-four miles.

Drainage Area—Contains 187.6 square miles in northeastern Berks and central Lehigh counties.

Topography—Rolling agricultural country, bounded by hilly country to southeast.

Channel—Tortuous, through extensive limestone formation, containing deposits of iron ore; slate formation in upper basin of Jordan Creek.

Profile—Rate of fall per mile: from source to elevation 600, 1 mile, 230 feet; thence to elevation 400, 3.5 miles, 57.1 feet; thence to mouth, 19.5 miles, 9.0 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Longswamp (221), Macungie (772), Mertztown (614), Fogelsville (500), Alburtis (800), Trexlertown (613), East Texas (260), Emaus (3,501), Allentown (51,913).

Industries—Agriculture; planing mills; iron ore mines; steel mills; foundries; furniture and textile factories.

Railroads—Lehigh Valley and Philadelphia & Reading traverse basin.

Utilization—Industrial supply at Allentown; railroad supply by Philadelphia & Reading at East Penn Junction. A small tributary of Swope Creek for water supply at Macungie. Water power by a few grist mills.

LEHIGH RIVER

Tributary to Delaware River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Sterling Township, southwestern Wayne County.

Course—Southwesterly to White Haven, being boundary of Lackawanna and Luzerne counties to northwest and Monroe and Carbon counties to southeast; thence southeasterly, through Carbon and between Northampton and Lehigh counties, to Catasauqua; thence southeasterly into Lehigh County to Allentown; thence northeasterly into Northampton County to Delaware River.

Mouth—At Easton; elevation 157.

Length—One hundred miles.

Drainage Area—Contains 1,373.1 square miles, embracing portions of Wayne, Lackawanna, Monroe, Luzerne, Carbon, Schuylkill, Berks, Northampton and Lehigh counties.

Topography—Basin above Lehigh Gap lies within Allegheny Mountain region, with its broken and somewhat parallel ridges and narrow valleys between same; ridges and steep slopes are well wooded. Below Blue Mountain at Lehigh Gap basin lies in the Piedmont Plateau, containing broad, rolling agricultural country.

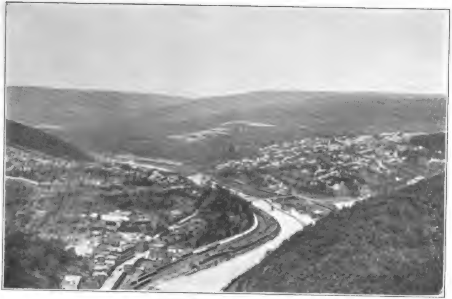
Geology—Shale and sandstone formations in mountainous regions, containing rich deposits of anthracite in Luzerne, Carbon and Schuylkill counties. In the Piedmont Plateau stream first enters a slate formation, which is the source of extensive slate quarries; thence a limestone formation is traversed, which is especially adapted to the manufacture of cement. The terminal moraine traverses basin in an easterly-westerly direction through Luzerne, Carbon and Monroe counties, above which moraine are located numerous lakes, ponds and swamps.

Channel—High and rocky banks, especially in upper course; between White Haven and Mauch Chunk, gorge-like. Numerous rapids and waterfalls. The bed is rock throughout most of its length, in places covered by a thin layer of drift; in lower course, behind the navigation dams, extensive silting has taken place.

Profile—Rate of fall per mile: from Slatington, elevation 338, to Allentown, elevation 225, 17.5 miles, 6.5 feet; thence to mouth, 16.5 miles, 4.1 feet.

Lakes—Bear Lake (134.6 acres), Ice Lake (56.7 acres), Lake Penn (51.2 acres), North Jersey Lake (250.2 acres), West End Lake (40.1 acres), Klondyke Lake (40.9 acres), Dorneys Lake (42.1 acres), Lake Watawgo (111.7 acres).

Plate X



Lehigh River at Mauch Chunk

NATURAL RESOURCES

Agriculture—Rich agricultural land in Piedmont Plateau.

Minerals—Anthracite deposits in Luzerne, Carbon and Schuylkill counties. Extensive slate quarries in vicinity of Slatington. Limestone quarries for cement manufacture in vicinity of Siegfried, Coplay and Northampton.

Timber—The forest growth is confined to ridges and steep slopes in mountains.

Water Power—This resource has been extensively developed in connection with the canal system of the Lehigh Coal & Navigation Co.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Tannery, June 1914. At Bethlehem, September 1902; discontinued December 1904; reestablished April 1909.

Precipitation—Mean annual, 35 to 55 inches.

ARTIFICIAL FEATURES

Towns—White Haven (1,438), Mauch Chunk (3,952), East Mauch Chunk (3,548), Lehighton (5,316), Palmerton (1,100), Slatington (4,454), Walnutport (1,039), Siegfried (2,050), Northampton (8,729), Coplay (2,670), Catasauqua (5,250), Allentown (51,913), Fountain Hill (1,388), Bethlehem (12,837), South Bethlehem (19,973), Easton (28,523).

Industries—Cement works; slate quarries; steel works; coal mines; foundries; ice harvesting; railroad shops; zinc works; textile mills; timber; agriculture.

Pollution—Waste from coal mines deposit enormous quantities of culm in stream.

Railroads—Lehigh Valley and Central Railroad of New Jersey follow stream from White Haven to mouth, while branches of these roads, Philadelphia & Reading, and other roads traverse basin, principally in areas of coal, slate and cement industries.

Utilization—Numerous towns and industries in lower basin use the river water for domestic and industrial purposes, but its impure condition and high silt content make purification necessary. Domestic supply by Clear Spring Water Co. at Catasauqua, Coplay, Northampton, North Catasauqua and neighboring villages; by Bethlehem Water Co. at South Bethlehem, Fountain Hill, Northampton Heights, Lehigh University, part of Bethlehem, and vicinity. Industrial supply by Lehigh Valley Transit Co. at Allentown; by Whitehall Cement Mfg. Co. at Egypt; by Bethlehem Steel Co. and Lehigh Coke Co. at South Bethlehem; by New Jersey Zinc Co. of Pa.

at Palmerton. Railroad supply by Wilkes-Barre & Eastern at Clifton; by Philadelphia & Reading at Catasauqua; by Ironton Railroad at Hokendauqua. Numerous supplies are taken from the Lehigh Canal, which parallels the river. Water power is developed by 20 plants, including 3 hydroelectric and 6 pumping plants, 4 flour mills, and 7 miscellaneous plants. The Lehigh Coal & Navigation Co. operates a canal and slack-water system of navigation on lower 45 miles, consisting of 10 dams and locks, and several short sections of canal connecting the pools, having a depth of 6 feet.

LICK CREEK

Tributary to Little Loyalsock Creek.

Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Overton Township, southern Bradford County.

Course—Southerly into Sullivan County to Little Loyalsock Creek.

Mouth—At Millview.

Length—Eight miles.

Drainage Area—Contains 24.8 square miles in southern Bradford and northern Sullivan counties.

Topography—Rolling hills; basin within glaciated region.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Campbellville (50).

LICK RUN

Tributary to Bald Eagle Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Marion Township, eastern Center County.

Course—Northwesterly, by a circuitous route, to Bald Eagle Creek.

Mouth—Near Howard.

Length—Four miles.

Drainage Area—Contains 12.9 square miles in eastern Center County.

Topography—Mountainous; narrow valley flanked with steep hills.

Channel—Sinuous, through sandstone formation; cuts through Bald Eagle Ridge, forming a gorge.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Howard (667).

Industries—Agriculture.

Utilization—Water supply, hydroelectric plant and grist mill at Howard.

LICK RUN

Tributary to West Branch Susquehanna River.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Huston Township, northwestern Clearfield County.

Course—Southeasterly to West Branch Susquehanna River.

Mouth—At Lickrun Mills.

Length—Eleven and one-half miles.

Drainage Area—Contains 30.9 square miles in northern central Clearfield County.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

LICK RUN

Tributary to West Branch Susquehanna River.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Chapman Township, northeastern Clinton County.

Course—Southeasterly and southerly to West Branch Susquehanna River.

Mouth—At Farrandsville.

Length—Sixteen and one-half miles.

Drainage Area—Contains 40.6 square miles in northeastern Clinton County.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Haneyville (83), Farrandsville (376).

Industries—Agriculture.

LICKING CREEK

Tributary to Clarion River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Porter Township, southern central Clarion County; elevation 1,450.

Course—Northwesterly to Clarion River.

Mouth—At Callensburg; elevation 962.

Length—Twelve and one-half miles.

Drainage Area—Contains 51.8 square miles in southern central Clarion County.

Topography—Broken and hilly; valley flanked with rolling hills; wide bottom lands in lower basin.

Channel—Sinuous, through shale and sandstone formations, containing coal, oil, gas, and some limestone.

Profile—Rate of fall, from source to mouth, 39.0 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Curllsville (98), Sligo (754), Rimersburg (855), Callensburg (198).

Industries—Oil; gas; coal mines; agriculture.

Railroads—Pennsylvania traverses basin.

Utilization—Pennsylvania Railroad water supply at Sligo. Water power for small mill at Sligo.

LICKING CREEK

Tributary to Potomac River. Basin: Potomac.

NATURAL FEATURES

Source—In Todd Township, northeastern Fulton County.

Course—Southwesterly to Knobsville; thence westerly and southerly into Franklin County; thence southeasterly into Maryland, returning to Pennsylvania and again crossing boundary into Maryland, at elevation 448; thence southerly to Potomac River.

Mouth—Near Ernstville, Md.; elevation 383.

Length—In Pa., 35 miles.

Drainage Area—In Pa., 177.0 square miles in eastern Fulton and southwestern Franklin counties.

Topography—Mountainous; narrow valleys with steep slopes.

Channel—Sinuous, through rough shale, sandstone, and limestone formations, containing coal.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Hustontown (300), Harrisonville (125), McConnellsburg (579), Webster Mills (140).

Industries—Agriculture; timber.

Utilization—Small tributary of Cove Creek for water supply at McConnellsburg. Main stream for water power for a few small grist mills.

LICKING CREEK

Tributary to West Branch Conococheague Creek. Basin: Potomac.

NATURAL FEATURES

Source—In Bear Pond Mountains, Maryland, just south of Mason-Dixon Line; elevation 1,300.

Course—Northeasterly into Franklin County, Pa., to West Branch Conococheague Creek.

Mouth—Four miles southeast of Mercersburg; elevation 470.

Length—In Pa., 13 miles.

Drainage Area—Total, 34.6 square miles; in Pa., 33.8 square miles in southwestern Franklin County.

Topography—Mountainous in headwaters; stream descends rapidly and enters a broad valley which is part of the fertile Cumberland Valley.

Channel—Sinuous in upper course, becoming tortuous in lower basin; carved in shale and limestone formations.

Profile—Rate of fall, from elevation 600 to mouth, 10 miles, 13 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Delk (25), Claylick (60), Kasiesville (47).

Industries—Agriculture.

LICKING CREEK

Tributary to Tuscarora Creek. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In Bratton Township, southern Mifflin County.

Course—Northeasterly into Juniata County; thence northeasterly and southeasterly to Tuscarora Creek.

Mouth—Near Port Royal.

Length—Twenty-two miles.

Drainage Area—Contains 38.9 square miles in southern Mifflin and western Juniata counties.

Topography—Mountainous; upper basin lies between two close, parallel ridges; broadens into rolling country in lower basin.

Channel—Sinuous, through shale, sandstone, and some limestone in lower course.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Walnut (150).

Industries—Agriculture.

Utilization—By Clearview Water Supply Co. (P. R. R.). Water power for a few small mills.

LIZARD CREEK

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—Near Kepner, in West Penn Township, Schuylkill County; elevation 750.

Course—Northeasterly into Carbon County to Lehigh River.

Mouth—At Lizard Creek Junction.

Length—Fifteen miles.

Drainage Area—Contains 53.8 square miles in eastern Schuylkill and southern Carbon counties.

Topography—Basin lies between parallel mountain ranges, Blue Mountain being on southeast.

Channel—Sinuous, through sandstone and limestone formations.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Kepner (36), Staudtsville (27), Snyders (110), Mantz (140), Ashfield (78).

Industries—Agriculture.

Railroads—Lehigh Valley follows stream from source to mouth.

LONG RUN

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Penn Forest Township, central Carbon County.

Course—Southwesterly to Lehigh River.

Mouth—Two miles southeast of Mauch Chunk.

Length—Three miles.

Drainage Area—Contains 4.0 square miles in central Carbon County.

Topography—Mountainous; narrow valley flanked with steep hills; well wooded.

Channel—Sinuous, through rough sandstone bed, having steep banks.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Utilization—Water supply by Lehighton Water Supply Co. at Lehighton and Weissport.

LOST CREEK

Tributary to Juniata River. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In West Perry Township, southwestern Snyder County.

Course—Southwesterly into Juniata County to Juniata River.

Mouth—At Cuba Mills.

Length—Fifteen miles.

Drainage Area—Contains 35.7 square miles, embracing portions of Snyder, Mifflin and Juniata counties.

Topography—Mountainous; main basin lies in rolling country at foot of range to northwest.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—McAlisterville (578), Oakland Mills (121).

Industries—Agriculture.

Utilization—Water power by a few small grist mills.

LOYALHANNA CREEK

Tributary to Kiskiminitas River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Cook Township, southeastern Westmoreland County.

Course—Northerly to Ligonier; thence northwesterly to Kiskiminitas River.

Mouth—Opposite Saltsburg; elevation 828.

Length—Forty-nine miles.

Drainage Area—Contains 300.0 square miles in eastern Westmoreland County.

Topography—Mountainous in headwaters; rolling hills in lower basin; main valley lies between Chestnut and Laurel ridges for 15 miles in upper course, the stream cutting through Chestnut Ridge, forming a gorge, and continuing in rolling country to mouth. About one-third of the area is wooded, principally in the upper basin.

Geology—Shale, sandstone and limestone formations, containing rich coal beds and some gas.

Channel—Tortuous, through alluvial flood plains in lower basin; in a gorge through Chestnut Ridge.

Profile—Rate of fall per mile: from elevations 1,220 to 1,000, 13 miles, 16.9 feet; thence to mouth, 28.5 miles, 6.0 feet.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: Below New Alexandria, October 1910; discontinued August 1913. At New Alexandria, August 1913.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Ligonier (1,575), Hostetter (820), Whitney (850), Baggaley (1,350), Latrobe (8,777), Bradenville (1,126), Loyalhanna (548), New Alexandria (505).

Industries—Extensive coal mines and coke ovens; steel mills; brick yards; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin; Ligonier Valley traverses basin and follows stream in middle course; Pittsburgh, Westmoreland & Somerset traverses basin and follows stream in upper course.

Utilization—Main stream for water supply at Latrobe. Furnace Run for water supply at Ligonier; two small tributaries of Crabtree Run for water supply at Greenwald.

LOYALSOCK CREEK

Tributary to West Branch Susquehanna River.

Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Forkston Township, southwestern Wyoming County.

Course—Westerly into Sullivan County to Forksville; thence southwesterly into Lycoming County to West Branch Susquehanna River.

Mouth—At Montoursville.

Length—Fifty-nine and one-half miles.

Drainage Area—Contains 492.8 square miles, embracing portions of Wyoming, Bradford, Sullivan and Lycoming counties.

Topography—Rough and hilly; narrow valleys flanked with high, steep, well wooded hills; upper basin contains many swamps and lakes of glacial origin.

Geology—Shale and sandstone formations, containing deposits of soft anthracite in headwaters.

Channel—Sinuous, through lakes and swamps in upper basin; banks become steep and bed rough in lower course.

Lakes—Connell Coal Dam (21.1 acres), Lake Mokoma (85.8 acres), Crystal Lake (10 acres), Painter Den Pond (12 acres), Lopez Pond (10 acres).

HYDROGRAPHIC FEATURES

Gaging Station—Established at Forksville, July 1908; discontinued December 1913.

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Bellasylva (72), Lopez (1,400), Mildred (550), Dushore (813), Laporte (245), Forksville (109), Shunk (216), Hillsgrove (437), Loyalsock (826), Warrensville (642), Montoursville (1,904).

Industries—Timber; agriculture; coal mines; tannery; silk mills.

Pollution—Waste from coal mines in upper course.

Railroads—Williamsport & North Branch, Susquehanna & Eagles Mere and Lehigh Valley traverse basin.

Utilization—Lehigh Valley Railroad water supply; industrial supply at Lopez. Birch Creek for industrial supply at Bernice and Mildred. Water power for small mills.

LOYALSOCK (LITTLE) CREEK

Tributary to Loyalsock Creek.

Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Cherry Township, northeastern Sullivan County.

Course—Southwesterly to Loyalsock Creek.

Mouth—At Forksville.

Length—Seventeen and one-half miles.

Drainage Area—Contains 91.0 square miles in southern Bradford and northern Sullivan counties.

Topography—Rolling hills; basin within glaciated region.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Dushore (813), Cherry Mills (150), Campbellville (50), Forksville (109).

Industries—Silk mills; flour mill; planing mill; creamery; agriculture.

Railroads—Lehigh Valley traverses upper basin.

Utilization—Small tributary for water supply at Dushore. Water power for a few small mills.

LYCOMING CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Canton Township, southwestern Bradford County.

Course—Southwesterly into Lycoming County to West Branch Susquehanna River, being Tioga-Lycoming county boundary for 6 miles.

Mouth—At Williamsport.

Length—Thirty-four and one-half miles.

Drainage Area—Contains 276.1 square miles, embracing portions of Bradford, Tioga, Sullivan and Lycoming counties.

Topography—Rough and hilly; narrow valleys flanked with steep, wooded hills; upper basin lies in glaciated region; in lower course valley widens and has bottom agricultural land.

Geology—Shale and sandstone formations, containing bituminous coal deposits.

Channel—Sinuous, through shale and sandstone formations, winding through bottom lands in lower course.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Trout Run, December 1913. At Bridge No. 2, near Williamsport, July 1908; discontinued November 1913.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Roaring Branch (400), Ralston (610), Bodines (221), Trout Run (350), Cogan Station (150), Williamsport (31,860).

Industries—Timber; quarries; clay banks; agriculture; ice harvesting.

Railroads—Northern Central follows stream from source to mouth; Susquehanna & New York traverses basin and follows stream from Ralston to mouth.

Utilization—Water power by a few small grist mills and sawmills.

McELHATTON CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Crawford Township, southeastern Clinton County.

Course—Northwesterly to West Branch Susquehanna River.

Mouth—At McElhattan.

Length—Nine miles.

Drainage Area—Contains 19.7 square miles in southeastern Clinton County.

Topography—Main basin lies in broad, fertile valley southeast of Bald Eagle Ridge, through which stream cuts a gap before entering West Branch Susquehanna River.

Channel—Sinuous, through sandstone and limestone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—McElhattan (263).

Industries—Agriculture.

Railroads—New York Central & Hudson River traverses lower basin.

Utilization—Main stream and Harveys Run, a tributary of Bald Eagle Creek, for water supply at Lock Haven. New York Central & Hudson River Railroad water supply at Youngdale.

McGEE RUN

Tributary to Conemaugh River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—On western slope of Chestnut Ridge, Derry Township, eastern central Westmoreland County; elevation 1,980.

Course—Northeasterly to Conemaugh River.

Mouth—At Cokeville; elevation 925.

Length—Nine and one-half miles.

Drainage Area—Contains 26.1 square miles in northeastern Westmoreland County.

Topography—Mountainous in headwaters; main valley is wide with rolling land on northwest and mountains to southeast.

Channel—Sinuous, through wide alluvial flats; carved in shale and sandstone.

Profile—Rate of fall, from Derry, elevation 1,200, to mouth, 7.5 miles, 36.7 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Derry (2,954), Millwood (454), Hillside (119), Cokeville (409).

Industries—Coal mines; glass sand banks; coke ovens; agriculture.

Railroads—Pennsylvania traverses basin and follows stream in middle course.

Utilization—Main stream and Millwood Run for water supply at Derry.

McKEE RUN

Tributary to Crooked Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Rayne Township, central Indiana County; elevation 1,380.

Course—Southwesterly and northwesterly to Crooked Creek.

Mouth—Opposite Creekside; elevation 1,022.

Length—Eight and one-half miles.

Drainage Area—Contains 14.0 square miles in western central Indiana County.

Topography—Broken and hilly; main valley flanked with steep hills.

Channel—Sinuous, through shale, sandstone and limestone formations, containing coal and gas.

Profile—Rate of fall, from source to mouth, 42.1 feet per mile.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Coal mines and coke ovens at Ernest; gas; agriculture.

Pollution—Waste from coal mines.

Railroads—Buffalo, Rochester & Pittsburgh traverses basin and follows stream in lower course.

Utilization—Domestic and industrial supply at Ernest.

McMICHAELS CREEK

Tributary to Brodheads Creek. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Pocono Mountains, Jackson Township, southwestern Monroe County.

Course—Southerly and northeasterly to Brodheads Creek.

Mouth—At Stroudsburg.

Length—Twenty-one miles.

Drainage Area—Contains 106.6 square miles in southern central Monroe County.

Topography—Broken, mountainous country containing lakes and swamps of glacial origin; well wooded.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Lakes—Mountain Spring Lake (74.3 acres), Trout Lake (89.7 acres), Poponoming Lake (39.5 acres).

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: Near Stroudsburg, August 1911. At Stroudsburg, September 1908; discontinued July 1910.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—McMichael (112), Reeders (75), Appenzell (78), Brodheadsville (554), Neola (33), Saylorsburg (320), Sciota (240), Snydersville (140), Stroudsburg (4,379).

Industries—Car shops; silk and woolen mills; tanneries; powder plant; foundry; brick works; agriculture; ice harvesting; summer resorts.

Railroads—Wilkes-Barre & Eastern traverses basin.

Utilization—Water power by a few grist mills.

MAHANOY CREEK

Tributary to Susquehanna River.

Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—In Delano Township, northern central Schuylkill County; elevation 1,560.

Course—Westerly into Northumberland County to Susquehanna River.

Mouth—Near Herndon; elevation 399.

Length—Fifty-two miles.

Drainage Area—Contains 155.5 square miles, embracing portions of Schuylkill, Columbia and Northumberland counties.

Topography—Basin lies wholly within Allegheny Mountain region; narrow valleys, flanked with steep, high ranges, which are gapped in several places by the streams.

Channel—Sinuous, through shale and sandstone formations, containing rich deposits of anthracite; extensive culm deposits.

Profile—Rate of fall per mile: from source to Mahanoy City, elevation 1,200, 4 miles, 90 feet; thence to mouth, 48 miles, 16.7 feet.

Precipitation—Mean annual, 40 to 55 inches.

ARTIFICIAL FEATURES

Towns—Delano (1,000), Mahanoy City (15,936), St. Nicholas (1,040), Gilberton (5,401), Mahanoy Plane (2,144), Shenandoah (25,774), Girardville (4,396), Frackville (3,118), Ashland (6,855), Gordon (1,185), Trevorton (1,263).

Industries—Coal mines; timber; agriculture.

Pollution—Waste from coal mines, causing pollution of entire stream and obstructing channel by excessive accumulation of culm.

Railroads—Philadelphia & Reading traverses basin and follows stream in upper and lower courses; Pennsylvania and Lehigh Valley traverse basin.

Utilization—Water supply as follows: North Branch at Delano; Waste House Run at Gilberton, Frackville, St. Nicholas and Yatesville; Lost Creek and Raven Run at Brownsville, William Penn, Lost Creek, Colorado, Raven Run, Connerton and Rappahannock; Bright Run at Fountain Springs; Fowler Run, Baird Run and Kehley Run by Citizens Water Co. at Shenandoah; Zerbe Run at Trevorton; Little Mahanoy Creek as auxiliary supply at Ashland; Coal Run and Pole Run at Mahanoy City. Main stream, Kehley Run and Raven Run for water supply for coal washing at collieries.

MAHANTANGO CREEK

Tributary to Susquehanna River.

Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—In Eldred Township, western Schuylkill County; elevation 1,260.

Course—Southwesterly to Susquehanna River, forming Northumberland-Dauphin county boundary for 15 miles.

Mouth—One mile north of Paxton; elevation 384.

Length—Thirty-two miles.

Drainage Area—Contains 164.6 square miles, embracing portions of Schuylkill, Dauphin and Northumberland counties.

Topography—Rough and hilly, basin lying between converging mountain ranges, which are gapped by tributaries in several places.

Channel—Sinuous, through shale and sandstone formations, containing coal in headwaters; steep, rocky banks in lower course.

Profile—Rate of fall per mile: from source to elevation 800, 4 miles, 115 feet; thence to elevation 500, 15 miles, 20 feet; thence to mouth, 13 miles, 8.9 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Haas (210), Pitman (200), Klingerstown (204), Valley View (580), Pillow (550).•

Industries—Agriculture; coal mines.

Pollution—Waste from coal mines.

Utilization—Water power for a few small mills.

MAHANTANGO CREEK (INCLUDING WEST BRANCH)

Tributary to Susquehanna River.

Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—West Branch, in West Perry Township, southern Snyder County; elevation 1,620. Main stream formed by junction of North Branch and West Branch, on Juniata-Snyder county boundary; elevation 438.

Course—Southeasterly to Susquehanna River, forming Juniata-Snyder county boundary for 16 miles.

Mouth—At Mahantango; elevation 389.

Length—West Branch, 17 miles; main stream, 1.5 miles.

Drainage Area—Contains 85.3 square miles, embracing portions of Snyder, Juniata and Perry counties.

Topography—Mountainous; narrow main valley, having some bottom land in places and flanked with steep, high hills; many mountain streams.

Channel—Sinuous, through shale, sandstone and limestone formations; cuts through mountain ridges in several places forming gaps.

Profile—Rate of fall, from elevation 700 to mouth, 16.5 miles, 18.8 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Richfield (500), Strouptown (41), Meiserville (75).

Industries—Agriculture.

Utilization—Water power for a few small grist mills.

MAHANTANGO CREEK, NORTH BRANCH

Tributary to Mahantango Creek.

Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—In West Perry Township, southern Snyder County; elevation 940.

Course—Northeasterly and southeasterly to Mahantango Creek.

Mouth—One mile west of Mahantango; elevation 438.

Length—Twelve and one-half miles.

Drainage Area—Contains 36.3 square miles in southeastern Snyder County.

Topography—Mountainous; main valley lies between spurs and ridges and has some bottom lands, principally in upper course.

Channel—Sinuous, through shale, sandstone and limestone formations.

Profile—Rate of fall, from source to mouth, 40.2 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Meiserville (75).

Industries—Agriculture.

Utilization—Water power for a few small grist mills.

MAHONING CREEK

Tributary to Allegheny River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Brady Township, northwestern Clearfield County.

Course—Southwesterly, through Jefferson County, into Indiana County to junction of Little Mahoning Creek; thence northwesterly into Armstrong County to Allegheny River.

Mouth—At Mahoning; elevation 786.

Length—Seventy-four miles.

Drainage Area—Contains 424.4 square miles, embracing portions of Clearfield, Jefferson, Indiana and Armstrong counties.

Topography—Upper basin lies in uplands of the Allegheny Plateau and is slightly eroded, elevations being from 2,200 to 2,500 feet. It is not mountainous, but slopes become abrupt and rugged forming deep valleys in lower basin, main valley being deep and in places broad, with steep wooded slopes, back of which are agricultural lands of great value. There are good storage sites.

Geology—Shale and sandstone formations, containing rich coal deposits, gas, and some limestone.

Channel—Tortuous, bounded by wide alluvial flats in many places; banks are steep, principally in lower course, being sandstone ledges or steep, rough slopes, with an occasional widening of valley.

Profile—Rate of fall, from elevation 1,280 to mouth, 63 miles, 7.8 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Furnace Bridge, 2.5 miles above mouth, October 1909.

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Sykesville (1,756), Big Run (1,032), Punxsutawney (9,058), Anita (2,500), Walston (1,937), Horatio (1,000).

Industries—Coal mines; coke ovens; oil; gas; quarries; brick works; glass works; tanneries; blast furnaces; machine shops; timber; extensive agricultural development.

Pollution—Waste from coal mines.

Railroads—Buffalo, Rochester & Pittsburgh traverses basin and follows stream from headwaters to near junction of Little Mahoning Creek; Buffalo & Susquehanna traverses basin and follows stream in upper course; Pittsburgh, Shawmut & Northern traverses basin and follows stream in lower course; Pennsylvania and New York Central & Hudson River traverse basin.

Utilization—Main stream for industrial supply at Greater Punxsutawney; water power for a few small grist mills. Jackson Run for water supply by Cloe Water Co. Tributaries for water supply at Big Run.

MAHONING CREEK

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In West Penn Township, eastern Schuylkill County; elevation 840.

Course—Northeasterly into Carbon County to Lehigh River.

Mouth—At Lehighton.

Length—Fourteen miles.

Drainage Area—Contains 37.3 square miles in eastern Schuylkill and southwestern Carbon counties.

Topography—Broad agricultural valley flanked with steep mountain spurs and ridges.

Channel—Sinuous, through sandstone formations.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—New Mahoning (214), Pleasant Corners (97), Lehighton (5,316).

Industries—Planing mill; textile mills; stove factory; foundry; agriculture.

MAHONING CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Madison Township, western Columbia County.

Course—Southwesterly into Montour County to North Branch Susquehanna River.

Mouth—Near Danville; elevation 447.

Length—Ten miles.

Drainage Area—Contains 39.5 square miles in western Columbia and southeastern Montour counties.

Topography—Broken and hilly in upper basin; main stream cuts through Montour Ridge just above mouth.

Channel—Sinuous, through shale, sandstone and limestone formations, containing some iron ore.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Kaseville (106), Mausdale (113), Danville (7,517).

Industries—Foundry; iron and steel works; timber; agriculture.

Railroads—Philadelphia & Reading traverses lower basin.

Utilization—Industrial supply at Danville; Philadelphia & Reading railroad supply at Mausdale.

MAHONING CREEK, EAST BRANCH

Tributary to Mahoning Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Brady Township, western Clearfield County.

Course—Southwesterly into Jefferson County to Mahoning Creek.

Mouth—Near Big Run; elevation 1,281.

Length—Eleven and one-half miles.

Drainage Area—Contains 42.9 square miles in western Clearfield and southeastern Jefferson counties.

Topography—Broken and hilly; main valley flanked with rolling hills.

Channel—Sinuous, through shale and sandstone formations, containing coal and some limestone.

Profile—Rate of fall, from elevation 1,400 to mouth, 5 miles, 23.8 feet per mile.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Troutville (260).

Industries—Agriculture.

Utilization—Main stream and Clover Run for domestic and industrial supply at Greater Punxsutawney.

MAHONING (LITTLE) CREEK

Tributary to Mahoning Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Green Township, eastern Indiana County; elevation 1,630.

Course—Northwesterly, by a circuitous route, to Mahoning Creek.

Mouth—Two miles northwest of Smicksburg; elevation 1,110.

Length—Thirty-four and one-half miles.

Drainage Area—Contains 81.0 square miles in northern Indiana and eastern Armstrong counties.

Topography—Broken and hilly country; main valley flanked with steep hills, 300 to 400 feet high, and has alluvial flood plains 0.5 mile wide for most of the distance between Richmond and Smicksburg.

Channel—Tortuous, through shale and sandstone formations, containing coal deposits and some limestone; bordered by wide flats between Richmond and Smicksburg.

Profile—Rate of fall per mile: from source to elevation 1,200, 17.5 miles, 24.6 feet; thence to mouth, 17 miles, 5.3 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Deckers Point (120), Hortons (120), Rochester Mills (247), Marchand (127), Smicksburg (230).

Industries—Coal; agriculture.

Railroads—Buffalo & Susquehanna and Buffalo, Rochester & Pittsburgh traverse basin.

Utilization—Buffalo, Rochester & Pittsburgh Railroad supply at Savan. Water power for small mill at Smicksburg.

MAHONING RIVER

Tributary to Beaver River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Columbiana County, Ohio.

Course—Northerly, by a circuitous route, to Warren, O.; thence southeasterly, crossing state boundary at elevation 797, into Lawrence County to join Shenango River and form Beaver River.

Mouth—Two and one-half miles southwest of New Castle; elevation 763.

Length—In Pa., 12 miles.

Drainage Area—Total, 1,099.4 square miles; in Pa., 54.6 square miles in western Lawrence County.

Topography—Rolling hills and broad valley in glaciated region.

Channel—Average width 300 feet, through glacial drift.

Profile—Rate of fall, from state boundary to mouth, 2.8 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established near New Castle, August 1914.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Hillsville (350), Edinburg (354).

Industries—Iron and steel works; agriculture.

Railroads—Pennsylvania Lines West of Pittsburgh and Pittsburgh & Lake Erie traverse basin and follow stream from state boundary to mouth; Baltimore & Ohio follows stream from state boundary to mouth.

Utilization—Pennsylvania Railroad water supply at Mahoningtown. It has been proposed to slack-water this stream up to Niles, O., in connection with Lake Erie-Ohio River Ship Canal.

MAIDEN CREEK

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Shochary Ridge, Lynn Township, western Lehigh County; elevation 720.

Course—Westerly into Berks County; thence southerly to Schuylkill River.

Mouth—Two miles southeast of Leesport; elevation 254.

Length—Twenty-six miles.

Drainage Area—Contains 215.8 square miles in western Lehigh and northeastern Berks counties.

Topography—Valley in upper basin, narrow; widens in lower basin, with rolling hills, in Piedmont Plateau.

Geology—Principally slate formation, containing slate quarries in upper basin; extensive limestone formation in lower basin.

Channel—Sinuous, through a narrow valley with some alluvial bottom land for 19 miles; thence tortuous through broad limestone valley for 7 miles to mouth.

Profile—Rate of fall per mile: from elevation 600 to Kempton, elevation 400, 5.5 miles, 36.4 feet; thence to mouth, 20 miles, 7.3 feet.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Kempton (225), New Tripoli (450), Lynnport (200), Jacksonville (206), Lenhartsville (153), Kutztown (2,360), Virginville (350), Moselem (211), Maiden Creek (140), Blandon (540), Fleetwood (1,394).

Industries—Cigar factories; agriculture; slate quarries.

Railroads—Philadelphia & Reading traverses basin and follows stream from Kempton to mouth.

Utilization—Domestic supply at Reading and railroad and industrial supply at Evansville. Main stream and Willow Creek for water power by a few small grist mills.

MANADA CREEK

Tributary to Swatara Creek. Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In East Hanover Township, northwestern Lebanon County; elevation 920.

Course—Southwesterly into Dauphin County to Manada Gap; thence southeasterly to Swatara Creek.

Mouth—At Manadaville; elevation 328.

Length—Fifteen miles.

Drainage Area—Contains 31.9 square miles in northwestern Lebanon and eastern Dauphin counties.

Topography—Headwaters in Allegheny Mountains; below Manada Gap stream flows through Piedmont Plateau in a broad valley flanked with rolling hills.

Channel—Sinuous, through sandstone beds in mountains, and through shale formation in plateau region.

Profile—Rate of fall per mile: from elevations 700 to 600, 4 miles, 25 feet; thence to elevation 500, 1.5 miles, 66.7 feet; thence to mouth, 9 miles, 19.1 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Manada Hill (187).

Industries—Agriculture.

Utilization—By Hershey Water Co. Water power for a few small mills. Was considered as possible source of water supply for Harrisburg.

MANATAWNY CREEK

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In District Township, eastern Berks County; elevation 890.

Course—Southerly, by a circuitous route, into Montgomery County to Schuylkill River.

Mouth—At Pottstown; elevation 122.

Length—Twenty-one and one-half miles.

Drainage Area—Contains 90.4 square miles in southeastern Berks and northwestern Montgomery counties.

Topography—Basin lies within Piedmont Plateau region. Upper eastern portion of basin is rough and hilly country, containing iron ore beds which were first to be operated in Pennsylvania; middle western and lower portions contain rolling agricultural lands.

Channel—Sinuous, through gneiss, limestone, red shale and sandstone formations respectively.

Profile—Rate of fall per mile: from elevations 500 to 400, 1.5 miles, 66.7 feet; thence to elevation 200, 11 miles, 18.2 feet; thence to mouth, 7.5 miles, 10.4 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Pikesville (182), Manatawny (150), Lobachsville (159), New Jerusalem (300), Friedensburg (800), Athol (300), Earlville (279), Boyertown (2,433), Pottstown (15,599).

Industries—Agriculture; dye works; silk mills; agricultural works; iron and steel works; shirt factories; knitting mills; machine works; bridge works; cigar factories.

Railroads—Philadelphia & Reading traverses basin and follows stream in lower course.

Utilization—Industrial supply at Pottstown; water power by numerous grist mills.

MANATAWNY (LITTLE) CREEK

Tributary to Manatawny Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Ruscombmanor Township, central Berks County; elevation 840.

Course—Southeasterly to Manatawny Creek.

Mouth—Near Manatawny; elevation 315.

Length—Five miles.

Drainage Area—Contains 35.8 square miles in central Berks County.

Topography—Hilly in headwaters, becoming broad, rolling agricultural country in lower basin.

Channel—Sinuous, through gneiss, limestone and sandstone formations.

Profile—Rate of fall per mile: from elevations 600 to 400, 1.5 miles, 133.3 feet; thence to mouth, 2.5 miles, 34 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Pricetown (315), Friedensburg (800), Lobachsville (159).

Industries—Agriculture.

Utilization—Beaver Run, a tributary of Pine Creek, for private water supply.

MARK RUN (or WARRIORS RUN)

For description see Warriors Run.

MARSH CREEK

Tributary to Monocacy River. Basin: Potomac.

NATURAL FEATURES

Source—In South Mountain, Franklin Township, western Adams County; elevation 1,580.

Course—Southeasterly, by a circuitous route, into Maryland, returning to state boundary to join Rock Creek and form Monocacy River.

Mouth—On state boundary, 8 miles south of Gettysburg; elevation 370.

Length—Twenty-five and one-half miles (last mile in Maryland).

Drainage Area—Total, 79.4 square miles; in Pa., 78.3 square miles in southwestern Adams County.

Topography—Mountainous in headwaters; main basin lies in the Piedmont Plateau.

Channel—Sinuous, through shale and sandstone formations, containing intrusions of trap rock; gently sloping banks, bordered with wide flats.

Profile—Rate of fall per mile: from source to elevation 900, 3 miles, 226.7 feet; thence to elevation 500, 8.5 miles, 47.1 feet; thence to mouth, 14 miles, 9.3 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Cashtown (300), Mummasburg (128), Sevenstars (115), McKnightstown (175), Orrtanna (190).

Industries—Extensive agriculture.

Railroads—Western Maryland traverses basin.

Utilization—Water supply at Gettysburg; private water supply by J. A. Ring. Water power by several small grist mills.

MARSH CREEK

Tributary to Bald Eagle Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Boggs Township, northern central Center County.

Course—Northeasterly, by a circuitous route, to Bald Eagle Creek.

Mouth—At Blanchard.

Length—Sixteen miles.

Drainage Area—Contains 45.8 square miles in northeastern Center County.

Topography—Mountainous; narrow valley flanked with steep hills; well wooded.

Channel—Sinuous, through sandstone formation.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Romola (165), Blanchard (483).

Industries—Agriculture.

MARSH CREEK

Tributary to Pine Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Duncan Township, southern central Tioga County.

Course—Northwesterly and southwesterly to Pine Creek.

Mouth—One mile southwest of Ansonia.

Length—Twenty miles.

Drainage Area—Contains 77.7 square miles in central Tioga County.

Topography—Broken and hilly; basin lies in glaciated region.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 30 to 40 inches.

ARTIFICIAL FEATURES

Towns—Wellsboro (3,183), Stokesdale (107), Ansonia (100).

Industries—Timber; chemical works; glass works; agriculture.

Railroads—New York Central & Hudson River traverses basin and follows stream from source to mouth.

Utilization—Water supply at Wellsboro, in conjunction with two tributaries of Babb Creek.

MARSHALL CREEK

Tributary to Brodheads Creek. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Middle Smithfield Township, northeastern Monroe County.

Course—Southerly to Brodheads Creek.

Mouth—Three miles east of Stroudsburg.

Length—Fourteen miles.

Drainage Area—Contains 33.7 square miles in eastern Monroe County.

Topography—Broken, mountainous country containing lakes and swamps of glacial origin; well wooded.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Lakes—Echo Lake (21.5 acres), Coolbaugh Pond (11.3 acres).

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Marshalls Creek (194), Coolbaugh (72).

Industries—Timber; ice harvesting; summer resorts.

Railroads—Delaware Valley traverses basin.

Utilization—Water power by a few grist mills.

MARTIN CREEK

Tributary to Tunkhannock Creek.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In New Milford Township, central Susquehanna County.

Course—Southerly into Wyoming County to Tunkhannock Creek.

Mouth—At Nicholson.

Length—Eighteen and one-half miles.

Drainage Area—Contains 57.5 square miles in southern central Susquehanna and northeastern Wyoming counties.

Topography—Rough and hilly; narrow valley flanked with steep hills rounded by glacial action; many small lakes and swamps.

Channel—Sinuous, through sandstone formation and glacial drift.

Lakes—Heart Lake (43.6 acres), Upper Lake (42 acres), Middle Lake (41.9 acres), Lower Lake (35.3 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Kingsley (210), Hop Bottom (364), Brooklyn (300), Nicholson (852).

Industries—Quarries; sawmills; agriculture; summer resort.

Railroads—Delaware, Lackawanna & Western traverses basin and follows stream from source to mouth.

Utilization—Water power for small grist mills.

MARTINS CREEK

Tributary to Delaware River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—On southern slope of Kittatinny Range, Upper Mount Bethel Township, northeastern Northampton County; elevation 1,100.

Course—Southerly to Delaware River.

Mouth—Near Martins Creek; elevation 183.

Length—Fifteen miles.

Drainage Area—Contains 46.7 square miles in southern Monroe and northeastern Northampton counties.

Topography—Mountainous in headwaters; main basin in Piedmont Plateau, containing rolling agricultural country; valley narrow and steep-sided for a 2-mile stretch near Martins Creek village.

Channel—Sinuous, through slate in upper basin and limestone in lower basin.

Profile—Rate of fall, from foot of mountain, elevation 800, to mouth, 13.5 miles, 45.7 feet per mile.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Pen Argyl (3,967), Bangor (5,369), Delabole (100), Ackermanville (276), Flicksville (119), East Bangor (1,186), Martins Creek (350).

Industries—Cement plants; slate quarries; agriculture.

Railroads—Delaware, Lackawanna & Western traverses basin and follows stream from Bangor to mouth; Lehigh & New England traverses upper basin.

Utilization—Main stream for water power by a few grist mills. East Fork and West Fork for water supply at East Bangor and Bangor respectively.

MARVIN CREEK

Tributary to Potato Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Sergeant Township, southern McKean County.

Course—Northeasterly to Potato Creek.

Mouth—At Smethport.

Length—Sixteen miles.

Drainage Area—Contains 58.3 square miles in southern central McKean County.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Mt. Jewett (1,771), Hazel Hurst (973), Kasson (25), Smethport (1,817).

Industries—Glass works; chemical works; timber; agriculture.

Railroads—Pittsburgh, Shawmut & Northern traverses basin and follows stream from Hazel Hurst to mouth.

Utilization—Sherman Run and Head Brook for water supply at Hazel Hurst and Mt. Jewett respectively; Blacksmith Run for water supply at Smethport. Water power by a few small grist mills.

MAST HOPE CREEK

Tributary to Delaware River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—Long Pond, in Berlin Township, eastern central Wayne County.

Course—Southeasterly into Pike County to Delaware River.

Mouth—Near Masthope.

Length—Nine miles.

Drainage Area—Contains 29.9 square miles in eastern central Wayne and northern Pike counties.

Topography—Rough and hilly country, containing lakes and swamps of glacial origin; well wooded.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Lakes—Long Pond (24.9 acres), Beech Lake (110.6 acres), Adams Pond (83.0 acres), Open Woods Pond (48.0 acres), Lake View (20.2 acres), Welcome Lake (39.4 acres), Wolf Lake (134.3 acres), Big Corilla Lake (73.6 acres), Little Corilla Lake (117.2 acres).

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Beachlake (250), Forest Park (20), Masthope (210).

Industries—Summer resorts; game preserves; agriculture.

MEADOW (BIG) RUN

Tributary to Youghiogheny River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—Formed by junction of Trout Hollow and Smiley Run, in Wharton Township, central Fayette County; elevation 1,935.

Course—Southeasterly and northeasterly to Youghiogheny River.

Mouth—Opposite Ohiopyle.

Length—Ten miles.

Drainage Area—Contains 35.9 square miles in southeastern Fayette County.

Topography—Broken mountainous area; narrow main valley, flanked with steep hills, except for a 3-mile stretch in upper basin where it broadens considerably.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall, from source to elevation 1,420, 9 miles, 57.2 feet per mile.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Farmington (85).

Industries—Timber; agriculture; coal.

MEANS RUN (or MIDDLE SPRING CREEK)

Tributary to Conodoguinet Creek.
Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Southampton Township, southwestern Cumberland County; elevation 1,900.

Course—Northwesterly to Conodoguinet Creek, forming Cumberland-Franklin county boundary for 11 miles.

Mouth—Near Middle Spring.

Length—Twelve miles.

Drainage Area—Contains 50.3 square miles in southwestern Cumberland and eastern Franklin counties.

Topography—Basin lies within broad, fertile Cumberland Valley; wide valley flanked with rolling agricultural lands.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Cleversburg (115), Shippensburg (3,457), Middle Spring (149).

Industries—Agriculture; overall and shirt factory.

Railroads—Cumberland Valley, Western Maryland and Philadelphia & Reading traverse basin.

Utilization—Tumbling Run, a tributary of Shirley Run, for water supply at Shippensburg.

MEDIX RUN

Tributary to Bennett Branch.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Girard Township, northern Clearfield County.

Course—Northwesterly into Elk County; thence northeasterly to Bennett Branch Sinnemahoning Creek.

Mouth—Near Medix Run.

Length—Twelve miles.

Drainage Area—Contains 30.8 square miles in northern Clearfield and southeastern Elk counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Coal mines; timber.

Railroads—Goodyear Lumber Company traverses basin and follows stream from Beechville to mouth.

MEHOOPANY CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Colley Township, southeastern Sullivan County.

Course—Northeasterly into Wyoming County to North Branch Susquehanna River.

Mouth—Near Mehoopany.

Length—Twenty-three miles.

Drainage Area—Contains 131.2 square miles, embracing portions of Sullivan, Bradford and Wyoming counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills 900 to 1,000 feet high; well wooded; swamps and small lakes in headwaters.

Channel—Sinuous, through shale and sandstone formations; bordered with alluvial flood plains in lower course.

Profile—Rate of fall, from elevations 1,800 to 920, 10 miles, 88 feet per mile; thence 8 miles to mouth.

Lakes—Grant Lake (68.8 acres).

HYDROGRAPHIC FEATURES

Gaging Station—Established near Mehoopany, January 1914.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Ricketts (257), Colley (75), Kasson Brook (70), Lovelton (136), Forkston (210), Mehoopany (648).

Industries—Agriculture.

Railroads—Lehigh Valley traverses upper basin.

Utilization—Water power for a few small mills.

MEHOOPANY CREEK, NORTH BRANCH

Tributary to Mehoopany Creek.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Wilmot Township, southeastern Bradford County.

Course—Southeasterly into Sullivan County; thence easterly into Wyoming County to Mehoopany Creek.

Mouth—Near Forkston.

Length—Fifteen and one-half miles.

Drainage Area—Contains 50.0 square miles, embracing portions of Bradford, Sullivan and Wyoming counties.

Topography—Rough and hilly; narrow valley flanked with steep hills; swamps and small lakes in headwaters.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Colley (75), Lovelton (136).

Industries—Agriculture.

Utilization—Water power for a grist mill at Lovelton.

MESHOPPEN CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Bridgewater Township, central Susquehanna County.

Course—Southwesterly into Wyoming County to North Branch Susquehanna River.

Mouth—At Meshoppen.

Length—Twenty-four miles.

Drainage Area—Contains 117.9 square miles in southwestern Susquehanna and northern Wyoming counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills rounded by glacial action; partly wooded; a few swamps and small lakes.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Lakes—Schooleys Pond (39.3 acres), South Pond (34 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Dimock (121), Springville (550), Auburn Four Corners (125), Auburn Center (115), Lynn (182), Vose (110), Meshoppen (630).

Industries—Sawmills; quarries; agriculture.

Railroads—Lehigh Valley traverses basin.

Utilization—Lehigh Valley Railroad supply at Lynn. Water power for flour mill at Meshoppen.

MESHOPPEN CREEK, WEST BRANCH (or WHITE CREEK)

Tributary to Meshoppen Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Bridgewater Township, central Susquehanna County.

Course—Southwesterly into Wyoming County to Meshoppen Creek.

Mouth—Two miles east of Meshoppen.

Length—Thirteen miles.

Drainage Area—Contains 27.9 square miles in southwestern Susquehanna and northwestern Wyoming counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

Utilization—Water power for small mill.

MESHOPPEN (LITTLE) CREEK

Tributary to Meshoppen Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Auburn Township, southwestern Susquehanna County.

Course—Southerly into Wyoming County to Meshoppen Creek.

Mouth—At Meshoppen.

Length—Nine miles.

Drainage Area—Contains 13.2 square miles in southwestern Susquehanna and northwestern Wyoming counties.

Topography—Rough and hilly; narrow valley flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Lakes—Whites Pond (31.9 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Meshoppen (630).

Industries—Agriculture.

Utilization—Water supply at Meshoppen. Water power for sawmill at Meshoppen.

MIDDLE CREEK

Tributary to Toms Creek. Basin: Potomac.

NATURAL FEATURES

Source—In Hamiltonban Township, southwestern Adams County; elevation 1,280.

Course—Southeasterly into Maryland; thence southerly to Toms Creek.

Mouth—Two miles southeast of Emmittsburg, Md.; elevation 362.

Length—In Pa., 13.5 miles.

Drainage Area—In Pa., 24.2 square miles in southwestern Adams County.

Topography—Headwaters in South Mountain; from Virginia Mills to state boundary main valley is broad; gently rolling country.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 1,100 to 600, 4.5 miles, 111.1 feet; thence to state boundary, elevation 422, 8.5 miles, 20.9 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Virginia Mills (46), Fairfield (373), Fairplay (75).

Industries—Agriculture.

Railroads—Western Maryland traverses basin.

MIDDLE CREEK

Tributary to Cocalico Creek. Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Heidelberg Township, eastern Lebanon County; elevation 690.

Course—Southeasterly into Lancaster County; thence southerly to Cocalico Creek.

Mouth—Near Millway; elevation 308.

Length—Thirteen and one-half miles.

Drainage Area—Contains 32.9 square miles in eastern Lebanon and northern Lancaster counties.

Topography—Broken and hilly in upper basin; rolling agricultural country in lower basin; main valley narrow and flanked with steep hills in middle basin, through South Mountain.

Channel—Sinuous, through sandstone formation in upper course and limestone in lower course.

Profile—Rate of fall per mile: from elevations 600 to 520, 4 miles, 20 feet; thence to elevation 340, 4 miles, 45 feet; thence to mouth, 5 miles, 6.4 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Kleinfeltersville (211), Brickerville (250), Hopeland (185), Clay (206), Durlach (175).

Industries—Agriculture.

MIDDLE CREEK

Tributary to Penns Creek. Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Ulsh Gap Run and Krepp Gap Run, in West Beaver Township, western Snyder County.

Course—Easterly to Penns Creek.

Mouth—South of Selinsgrove; elevation 424.

Length—Twenty-eight miles.

Drainage Area—Contains 163.5 square miles in northern central Snyder County.

Topography—Mountainous; broad, fertile main valley between two ranges of Allegheny Mountains.

Channel—Sinuous, through shale, sandstone and limestone formations, containing some iron ore.

Profile—Rate of fall, from elevation 480 to mouth, 7.5 miles, 7.5 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Beaver Springs (550), Beavertown (846), Paxtonville (182), Swineford (400), Kantz (126), Globe Mills (325), Middleburg (531).

Industries—Shirt factory; tannery; planing mill; agriculture.

Railroads—Pennsylvania traverses basin and follows stream in middle course.

Utilization—Erb Run and Bowersox Run for water supply at Middleburg and Franklin. Water power for a few small grist mills.

MIDDLE CREEK

Tributary to Lackawaxen River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Moosic Mountain, southeast of Carbondale, Lackawanna County; elevation 1,960.

Course—Southeasterly into Wayne County; thence easterly to Lackawaxen River.

Mouth—At West Hawley.

Length—Twenty-one miles.

Drainage Area—Contains 77.4 square miles in eastern Lackawanna and central Wayne counties.

Topography—Broken, mountainous country containing many lakes and swamps of glacial origin.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Lakes—Collins Pond (43.1 acres), Lake Quinsigamond (68.9 acres), Brunsons Pond (54.2 acres), Sand Pond (84.7 acres).

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Simon (45), South Canaan (150), Varden (185), Clemo (27), Hoadleys (52).

Industries—Glass bottle factory; timber; agriculture.

Railroads—Erie traverses basin and follows stream from Clemo to mouth.

Utilization—Erie Railroad supply at Clemo and West Hawley.

MILL CREEK

Tributary to Sacony Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—Near Seiberlingville, Weisenburg Township, Lehigh County; elevation 800.

Course—Southwesterly into Berks County to Sacony Creek.

Mouth—One and one-half miles northwest of Kutztown; elevation 370.

Length—Eight miles.

Drainage Area—Contains 23.4 square miles in western Lehigh and northeastern Berks counties.

Topography—Rough and hilly; narrow valley flanked with steep hills.

Channel—Sinuous, through slate formation.

Profile—Rate of fall per mile: from source to elevation 600, 1 mile, 200 feet; thence to mouth, 7 miles, 32.9 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Weisenburg (135), Grimville (186).

Industries—Agriculture.

Utilization—Kemps Run for water supply at Kutztown.

MILL CREEK

Tributary to Clarion River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Eldred Township, northwestern Jefferson County.

Course—Southerly and northwesterly into Clarion County to Clarion River.

Mouth—At Mill Creek, 4 miles northeast of Clarion; elevation 1,080.

Length—Eighteen and one-half miles.

Drainage Area—Contains 55.5 square miles in northwestern Jefferson and eastern Clarion counties.

Topography—Rough and hilly; narrow valley flanked with steep, densely wooded hills.

Channel—Tortuous, through shale and sandstone formations.

Profile—Rate of fall, from elevation 1,220 to mouth, 5.5 miles, 25.5 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Fisher (117), Corsica (301).

Industries—Agriculture.

Utilization—Kyle Run, a tributary of Little Mill Creek, by Kyle Water Co. (B. R. & P. R. R.).

MILL CREEK

Tributary to Juniata River. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In Miller Township, northeastern Huntingdon County.

Course—Southwesterly to Juniata River.

Mouth—At Mill Creek.

Length—Nine and one-half miles.

Drainage Area—Contains 39.2 square miles in eastern Huntingdon County.

Topography—Mountainous; narrow valleys flanked with steep, high hills.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Union Church (37), Airydale (42), Mill Creek (308).

Industries—Agriculture.

Utilization—Water power by a small grist mill at Mill Creek.

MILL CREEK

Tributary to Sandy Lick Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Snyder Township, northeastern Jefferson County, 2 miles northwest of Brockwayville.

Course—Southwesterly to Sandy Lick Creek.

Mouth—At Port Barnet.

Length—Seventeen and one-half miles.

Drainage Area—Contains 54.9 square miles in northeastern Jefferson County.

Topography—Rough and hilly; main valley contains broad agricultural lands, not extensively developed.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sugar Hill (76), Allens Mills (237).

Industries—Agriculture.

Railroads—Pittsburgh, Shawmut & Northern follows stream from headwaters to mouth.

MILL CREEK

Tributary to Conestoga Creek. Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Welsh Mountain, East Earl Township, eastern Lancaster County; elevation 960.

Course—Southwesterly to Conestoga Creek.

Mouth—Two miles south of Lancaster; elevation 227.

Length—Twenty-six miles.

Drainage Area—Contains 56.5 square miles in eastern central Lancaster County.

Topography—Broad, rolling agricultural country.

Channel—Sinuous in upper course and tortuous in lower course, through extensive limestone formation.

Profile—Rate of fall per mile: from elevations 500 to 400, 2.5 miles, 40 feet; thence to mouth, 21 miles, 8.2 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Intercourse (420), Ronks (106), Bird in Hand (278), Witmer (800), Hollinger (135).

Industries—Agriculture.

Railroads—Pennsylvania traverses basin.

MILL CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Pittston Township, northeastern Luzerne County; elevation 1,760.

Course—Westerly to North Branch Susquehanna River.

Mouth—At Wilkes-Barre; elevation 529.

Length—Twelve miles.

Drainage Area—Contains 36.8 square miles in northeastern Luzerne County.

Topography—Rough and hilly; wide main valley flanked with steep hills; wide bottom lands in lower course.

Channel—Tortuous, through shale and sandstone formations, containing rich deposits of anthracite in lower basin.

Profile—Rate of fall per mile: from source to elevation 700, 7 miles, 151.4 feet; thence to mouth, 5 miles, 34.2 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Laflin (528), Hudson (2,500), Plains (1,029), Miners Mills (3,159), Parsons (4,338), Laurel Run (790), Wilkes-Barre (67,105).

Industries—Coal mines.

Pollution—Waste from coal mines in lower course.

Railroads—Central Railroad of New Jersey, Wilkes-Barre & Eastern, Delaware & Hudson and Lehigh Valley traverse basin.

Utilization—Main stream and three tributaries for water supply by Spring Brook Water Supply Co. at Wilkes-Barre and vicinity.

MILL CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Sweden Township, central Potter County.

Course—Westerly to Allegheny River.

Mouth—At Coudersport.

Length—Nine miles.

Drainage Area—Contains 32.2 square miles in central Potter County.

Topography—Rough and hilly; narrow valley flanked with steep hills; well wooded on the ridges.

Channel—Sinuous, through sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sweden Valley (82), Coudersport (3,100).

Industries—Timber; glass plant; agriculture.

MILL CREEK

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Broad Mountain, 1 mile southeast of Mahanoy City, Mahanoy Township, Schuylkill County; elevation 1,650.

Course—Southwesterly to Wetherill Junction; thence southeasterly to Schuylkill River.

Mouth—At Port Carbon; elevation 630.

Length—Twelve miles.

Drainage Area—Contains 25.0 square miles in central Schuylkill County.

Topography—Rough mountainous country; main valley is narrow, flanked with high, steep hills, principally where stream cuts through ridges.

Channel—Sinuous, through shale and sandstone formations, containing rich deposits of anthracite.

Profile—Rate of fall per mile: from source to junction with Mud Run, elevation 1,195, 6 miles, 75.8 feet; thence to St. Clair, elevation 800, 3 miles, 131.7 feet; thence to mouth, 3 miles, 56.7 feet.

Precipitation—Mean annual, 50 to 55 inches.

ARTIFICIAL FEATURES

Towns—New Boston (635), Morea Colliery (903), St. Clair (6,455), Port Carbon (2,678).

Pollution—Waste from coal mines.

Industries—Coal mines; railroad yards and shops.

Railroads—Pennsylvania follows stream from source to St. Clair; Philadelphia & Reading traverses basin and follows stream from junction with Mud Run to mouth; Lehigh Valley follows stream in headwaters.

Utilization—Main stream and Mud Run for industrial and domestic supply by Philadelphia & Reading Coal & Iron Co. Eisenhuth Run, Kauffman Run, a tributary of Mud Run, and Wolf Creek for domestic supply by Pottsville Water Co.

MILL CREEK

Tributary to Loyalsock Creek.
Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Fox Township, northwestern Sullivan County.

Course—Southeasterly to Loyalsock Creek.

Mouth—At Hillsgrove.

Length—Six and one-half miles.

Drainage Area—Contains 7.4 square miles in northwestern Sullivan County.

Topography—Rough and hilly; narrow valley flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Hillsgrove (437).

Industries—Tannery.

Railroads—Susquehanna & Eagles Mere follows stream from headwaters to mouth.

Utilization—Industrial supply at Hillsgrove.

MILL CREEK

Tributary to Tioga River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Wells Township, northwestern Bradford County.

Course—Westerly into Tioga County to Tioga River.

Mouth—At Mill Creek; elevation 1,062.

Length—Seventeen and one-half miles.

Drainage Area—Contains 77.2 square miles in western Bradford and eastern Tioga counties.

Topography—Rough and hilly; narrow valley flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 1,240 to 1,200, 4 miles, 10 feet; thence to elevation 1,120, 0.5 mile, 160 feet; thence to mouth, 3 miles, 19.3 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Rutland (247).

Industries—Agriculture.

MILL (BIG) CREEK

Tributary to Clarion River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Jones Township, northern Elk County.

Course—Southerly to Clarion River.

Mouth—Southwest of Ridgway.

Length—Fifteen miles.

Drainage Area—Contains 28.8 square miles in northern central Elk County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; densely wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Timber; agriculture.

Utilization—Water supply at Ridgway; Buffalo, Rochester & Pittsburgh Railroad supply at Thayers.

MILLERS RUN

Tributary to Chartiers Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Mount Pleasant Township, northern Washington County, 2 miles south of Midway; elevation 1,190.

Course—Easterly to Bishop; thence northeasterly into Allegheny County to Chartiers Creek.

Mouth—Near Bridgeville; elevation 822.

Length—Twelve and one-half miles.

Drainage Area—Contains 28.6 square miles in northern Washington and southwestern Allegheny counties.

Topography—Broken and hilly; main valley flanked with steep hills, 300 to 400 feet high.

Channel—Sinuous, through clay and sandstone.

Profile—Rate of fall per mile: from source to elevation 1,000, 4.5 miles, 42.2 feet; thence to mouth, 8 miles, 22.2 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Venice (119).

Industries—Coal mines; gas wells; agriculture.

Railroads—Wabash Pittsburgh Terminal follows stream from headwaters to mouth; Pittsburgh, Cincinnati, Chicago & St. Louis traverses basin and follows stream in lower course.

MILLSTONE CREEK

Tributary to Clarion River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Jenks Township, eastern Forest County.

Course—Southerly, by a circuitous route, into Elk County to Clarion River.

Mouth—At Millstone.

Length—Fifteen miles.

Drainage Area—Contains 61.4 square miles in southeastern Forest and western Elk counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; partly wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture; timber.

Railroads—Tionesta Valley traverses basin.

MIX RUN

Tributary to Bennett Branch.
Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Benezette Township, southeastern Elk County.

Course—Northeasterly into Cameron County to Bennett Branch Sinnemahoning Creek.

Mouth—At Mix Run.

Length—Eleven and one-half miles.

Drainage Area—Contains 36.6 square miles in southeastern Elk and southern Cameron counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Timber; agriculture.

MONOCACY CREEK

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Oley Township, eastern central Berks County; elevation 670.

Course—Southerly to Schuylkill River.

Mouth—At Monocacy; elevation 143.

Length—Eleven miles.

Drainage Area—Contains 25.5 square miles in southeastern Berks County.

Topography—Rough and hilly in upper and western portions of basin; rolling agricultural country in eastern and lower portions.

Channel—Sinuous, through shale, sandstone and limestone formations.

Profile—Rate of fall per mile: from elevations 500 to 400, 0.5 mile, 200 feet; thence to elevation 200, 5 miles, 40 feet; thence to mouth, 5 miles, 11.4 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Oley (800), Stonersville (120), Baumstown (172), Monocacy (256).

Industries—Agriculture; quarries.

Utilization—Water power for a few small grist mills.

MONOCACY CREEK

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Moore Township, western Northampton County.

Course—Southerly to Lehigh River, being Northampton-Lehigh county boundary for last mile.

Mouth—At Bethlehem; elevation 212.

Length—Seventeen miles.

Drainage Area—Contains 49.6 square miles in western Northampton and eastern Lehigh counties.

Topography—Rolling agricultural country; above Bath main valley is narrow, flanked with low hills.

Channel—Sinuous, through slate in upper basin and extensive limestone formation in lower basin.

Profile—Rate of fall per mile: from elevations 600 to 400, 2.5 miles, 80 feet; thence to mouth, 13.5 miles, 13.9 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Chapman (253), Bath (1,057), Hecktown (175), Bethlehem (12,837).

Industries—Slate quarries; cement works; silk mills; stocking factory; agriculture.

Railroads—Lehigh & New England traverses basin and follows stream from headwaters to mouth; Delaware, Lackawanna & Western and Northampton & Bath traverse basin.

Utilization—Industrial supply at Chapman; Lehigh & New England Railroad supply at Bath. Water power by a few grist mills. Small tributary in headwaters for water supply at Bath.

MONONGAHELA RIVER

Tributary to Ohio River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—Formed by junction of Tygart Valley River and West Fork River, near Fairmont, West Virginia; elevation 858.

Course—Northeasterly into Pennsylvania; thence northerly to join Allegheny River and form Ohio River, being boundary of Greene and Washington counties on the west and Fayette, Westmoreland and Allegheny counties on the east.

Mouth—At Pittsburgh; elevation 703.

Length—Total, 128.1 miles; in Pa., 91.6 miles.

Drainage Area—Total, 7,340 square miles; in Pa., 2,728 square miles, embracing portions of Greene, Fayette, Somerset, Washington, Westmoreland and Allegheny counties.

Topography—The basin lies west of the Allegheny Mountains and drains their slopes. From eastern part, proceeding westward, the country becomes less mountainous and more fertile, consisting of rolling hills. The whole region was at one time heavily timbered, but on account of development of coal mines, lumbering and other industries, it has been denuded of forests, except in the mountainous portions. The valleys in general are narrow with steep hillsides. The upland, close to the river, ranges in height above water from 500 to 600 feet along the upper reaches, to about 400 feet in the vicinity of the mouth. From Fairmont to the Pennsylvania boundary the hills are close to the river, and only a few small areas of bottom land are found, but below that point there are a number of stretches, some of them bordering the river for several miles. Upon nearing Pittsburgh these flats become more extensive, in some cases having a width of about half a mile.

Geology—The formations are principally shale and sandstone, containing some limestone, oil, gas, and rich coal beds. This basin holds one of the most valuable and extensively developed deposits of bituminous coal in the world.

Channel—Sinuous, through mountainous and hilly regions; carved in shale and sandstone in upper basin, and in alluvial clay and gravel, with an occasional rock outcrop in the bed, in the lower basin. The average width of the stream between flow lines of the pools is as follows: from Fairmont to the mouth of the Youghiogheny River, a distance of 112 miles, 600 feet; thence to the mouth, 15 miles, 870 feet; very few islands.

Profile—Rate of fall, from state boundary to mouth, 0.8 feet per mile. The following table gives pool levels and lifts at dams, with distances above mouth:

Location	Distance above Mouth	Lift	Pool Level
	Miles	Feet	Feet
Mouth,	0.0	....	703.0
Lock No. 1,	1.9	4.4	707.4
Lock No. 2,	11.2	7.8	715.2
Lock No. 3,	23.9	8.3	723.5
Lock No. 4,	41.2	11.5	735.0
Lock No. 5,	58.8	12.1	747.1
Lock No. 6,	68.6	13.0	760.1
Lock No. 7,	82.7	9.9	770.0
Lock No. 8,	87.5	10.8	780.8
State boundary,	91.6	....	780.8

Plate XI

Upper Monongahela River, showing Navigation Dam

HYDROGRAPHIC FEATURES

Gaging Station—Established at South Brownsville, February 1915.

Precipitation—Mean annual, 35 to 55 inches.

NATURAL RESOURCES

Agriculture—This industry is developed mostly in the lower basin, where the country is rolling and fertile.

Minerals—Bituminous coal is found in great abundance in middle and lower basins. Oil and gas are found. Main basin is rich in clay and sandstone deposits, and has some limestone.

Timber—Valuable timber areas are confined to mountainous regions in southeastern portion of basin.

Water Power—Owing to the flat slopes, lack of good natural storage sites, and development of coal deposits, there are no valuable water power developments in Pennsylvania. There is, however, a project to develop the resources of the Cheat River in West Virginia.

ARTIFICIAL FEATURES

Towns—Uniontown (13,344), Charleroi (9,615), Monessen (11,775), Donora (8,174), Monongahela (7,598), Glassport (5,540), McKeesport (42,694), Connellsville (12,845), Mt. Pleasant (5,812), Scottdale (5,456), Duquesne (15,727), Greensburg (13,012), Jeannette (8,077), Wilmerding (6,133), East Pittsburgh (5,615), North Braddock (11,824), Braddock (19,357), Rankin Station (6,042), Homestead (18,713), Wilkinsburg (18,924), Swissvale (7,381), Pittsburgh (533,905).

Industries—Coal mining, coking and iron and steel manufacturing have made this district world famous. Oil and gas are found, while agriculture in the lower basin and logging in the mountainous region are extensively developed.

Pollution—The coal mines and many manufacturing plants along the rivers discharge enormous quantities of waste into the streams, making them unfit for domestic use without special treatment.

Railroads—Pennsylvania traverses basin and follows stream from Martin to mouth; Pittsburgh & Lake Erie traverses basin and follows stream from South Brownsville to mouth; Baltimore & Ohio traverses basin and follows stream near state boundary and from McKeesport to mouth; Bessemer & Lake Erie and West Side Belt traverse basin.

Utilization—The principal uses of this stream are water supply and navigation. Many towns along the stream get their water supply direct from the river, including Duquesne, Braddock, Homestead, Monongahela, Donora, Charleroi, California, Brownsville, West Brownsville, Fredericktown, Belle Vernon and Monessen. Many industrial and railroad supplies are taken from the main stream. It is estimated that the dry weather flow of the Monongahela River is used 20 times by industrial plants in the lower 15 miles. Navigation has been improved on this river throughout its length in Pennsylvania by the Federal Government, by means of a series of 8 locks and dams, through which great quantities of coal are shipped. Between the Pennsylvania-West Virginia boundary and Fairmont, W. Va., there are 7 sets of locks and dams. Six-foot navigation extends 130.7 miles from the mouth and 4-foot navigation almost a mile beyond. Water power is practically undeveloped.

MONTGOMERY CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Tinker and Horn Shanty runs, in Pike Township, central Clearfield County.

Course—Southeasterly to West Branch Susquehanna River.

Mouth—Two miles southwest of Clearfield.

Length—Six miles.

Drainage Area—Contains 15.6 square miles in central Clearfield County.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

Utilization—Main stream and Moose Creek, a tributary of West Branch Susquehanna River, for water supply at Clearfield.

MONTOUR RUN

Tributary to Ohio River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—Formed by junction of North Fork and South Fork, on Findley-North Fayette township boundary, western Allegheny County; elevation 965.

Course—Northeasterly to Ohio River.

Mouth—At Coraopolis; elevation 692.1.

Length—Eleven and one-half miles.

Drainage Area—Contains 36.4 square miles in western Allegheny County.

Topography—Broken and hilly; main valley flanked with steep hills 300 to 400 feet high.

Channel—Tortuous, in clay and sandstone; banks are irregular, being precipitous hills in places along lower course.

Profile—Rate of fall, from source to mouth, 23.7 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Coraopolis (5,252).

Industries—Coal; oil and gas; iron and steel works; agriculture.

MOOSE CREEK

Tributary to West Branch Susquehanna River.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Upper Moose and Lower Moose creeks, in Lawrence Township, central Clearfield County.

Course—Southeasterly to West Branch Susquehanna River.

Mouth—At West Clearfield.

Length—Two miles.

Drainage Area—Contains 13.9 square miles in central Clearfield County.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

Utilization—Main stream and Montgomery Creek, a tributary of West Branch Susquehanna River, for water supply at Clearfield.

MOSHANNON CREEK

Tributary to West Branch Susquehanna River.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Snyder Township, northern Blair County.

Course—Northeasterly, forming Clearfield-Center county boundary, to West Branch Susquehanna River.

Mouth—Southwest of Pine Glen.

Length—Forty-six miles.

Drainage Area—Contains 288.1 square miles, embracing portions of Cambria, Blair, Clearfield and Center counties.

Topography—Rough and hilly country; narrow valleys flanked with steep hills.

Geology—Shale and sandstone formations, containing rich deposits of bituminous coal.

Channel—Sinuous, through a valley which is wide in places, containing alluvial flats, but generally narrow with steep banks.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Winburne, October 1913.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Brisbin (459), Houtzdale (1,434), Osceola (2,437), Chester Hill (648), Philipsburg (3,585), Morrisdale (669), Winburne (1,100), South Philipsburg (434), Grassflat (500), Peale (686).

Industries—Coal mines; foundries; brick works; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania, New York Central & Hudson River and Pennsylvania & Susquehanna traverse basin and follow stream in middle course.

Utilization—Water supply as follows: Mountain Branch at Houtzdale; Trout Run at Osceola; Cold Stream at Philipsburg, South Philipsburg and Chester Hill; Emigh Run at Morrisdale; Black Bear Run at Winburne.

MOSHANNON (LITTLE) CREEK

Tributary to Moshannon Creek.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Rush Township, southwestern Center County.

Course—Northeasterly and northwesterly to Moshannon Creek.

Mouth—Three miles west of Moshannon.

Length—Eighteen miles.

Drainage Area—Contains 55.6 square miles in western Center County.

Topography—Mountainous in headwaters on southeastern side of basin.

Channel—Sinuous, through shale and sandstone formations, containing coal in lower basin.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Moshannon (118).

Industries—Coal mines; agriculture.

Pollution—Waste from coal mines.

Railroads—New York Central & Hudson River traverses basin.

MOSQUITO CREEK

Tributary to West Branch Susquehanna River.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Benezette Township, southeastern Elk County.

Course—Southeasterly into Clearfield County to West Branch Susquehanna River.

Mouth—At Karthaus.

Length—Eighteen miles.

Drainage Area—Contains 63.7 square miles, embracing portions of Cameron, Elk and Clearfield counties.

Topography—Rough and hilly country in Allegheny Plateau; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing coal in lower basin.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Karthaus (600).

Industries—Coal mines; agriculture.

MOSQUITO RUN

Tributary to West Branch Susquehanna River.

Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Armstrong Township, southern central Lycoming County.

Course—Northerly to West Branch Susquehanna River.

Mouth—At Duboistown.

Length—Six and one half miles.

Drainage Area—Contains 13.0 square miles in southern central Lycoming County.

Topography—Mountainous in headwaters; stream cuts through Bald Eagle Ridge.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Duboistown (682).

Industries—Marble and stone quarries; agriculture.

Utilization—Water supply at Williamsport, South Williamsport, Duboistown, and Newberry.

MOSS CREEK

Tributary to West Branch Susquehanna River.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Barr Township, northwestern Cambria County; elevation 1,860.

Course—Northerly to West Branch Susquehanna River.

Mouth—Near Garmans Mills; elevation 1,424.

Length—Five miles.

Drainage Area—Contains 7.7 square miles in northwestern Cambria and eastern Indiana counties.

Topography—Rough and hilly; main valley is flanked with steep hills; some bottom land in middle basin.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Profile—Rate of fall, from source to mouth, 87.2 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Railroads—Pennsylvania follows stream from Moss Creek to mouth.

Utilization—Water supply by Cambria County Water Supply Co.

MOUNTAIN BRANCH

Tributary to Moshannon Creek.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Rush Township, southwestern Center County.

Course—Northwesterly to Moshannon Creek.

Mouth—Two miles southeast of Houtzdale; elevation 1,514.

Length—Six miles.

Drainage Area—Contains 13.5 square miles in southwestern Center County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall, from elevation 2,100 to mouth, 5 miles, 117.2 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Utilization—Water supply by Houtzdale Water Co.

MOUNTAIN CREEK

Tributary to Yellow Breeches Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Menallen Township, northwestern Adams County; elevation 1,465.

Course—Northeasterly into Cumberland County to Yellow Breeches Creek.

Mouth—Two miles north of Mt. Holly Springs; elevation 502.

Length—Nineteen miles.

Drainage Area—Contains 49.4 square miles in northwestern Adams and southern Cumberland counties.

Topography—Mountainous; narrow valley flanked with steep, high hills.

Channel—Sinuous, through shale, sandstone and limestone formations, containing iron ore.

Profile—Rate of fall, from elevation 680 to mouth, 7.5 miles, 23.7 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Pinegrove Furnace (278), Hunters Run (45), Mt. Holly Springs (1,272).

Industries—Paper mills; agriculture.

Railroads—Philadelphia & Reading traverses basin and follows stream from Pinegrove Furnace to mouth.

Utilization—Water power by paper mills and hydroelectric plant at Mt. Holly Springs.

MOUNTS CREEK

Tributary to Youghiogheny River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—On western slope of Chestnut Ridge, Bullskin Township, northeastern Fayette County.

Course—Southwesterly to Youghiogheny River.

Mouth—At Connellsville; elevation 859.

Length—Eleven and one-half miles.

Drainage Area—Contains 32.7 square miles in northeastern Fayette County.

Topography—Mountainous in headwaters; hilly in middle and lower basin, with wide main valley, narrowing to some extent between Moyer and a point 1 mile above mouth.

Channel—Sinuous, through clay and sandstone formations; steep hills on both sides in lower course below Moyer.

Profile—Rate of fall, from elevation 1,100 to mouth, 9 miles, 26.8 feet per mile.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Pennsville (278), Moyer (578), Connellsville (12,845).

Industries—Extensive coal mining and coking.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream in lower course.

Utilization—Main stream and tributaries for water supply at Scottdale and Connellsville. Coke companies have several separate industrial supplies. Water power for a few small mills.

MUD RUN

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—Formed by junction of Dilltown and Carpsrocus creeks, 2 miles east of Albrightsville, northeastern Carbon County.

Course—Southwesterly to Lehigh River.

Mouth—At Mud Run.

Length—Seven miles.

Drainage Area—Contains 35.9 square miles, principally in northeastern Carbon County.

Topography—Broken and mountainous; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through sandstone formation.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Albrightsville (87).

Industries—Agriculture.

MUDDY CREEK

Tributary to French Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Athens Township, northeastern Crawford County.

Course—Southerly and northwesterly to French Creek.

Mouth—Three miles east of Cambridge Springs.

Length—Seventeen and one-half miles.

Drainage Area—Contains 83.1 square miles in northeastern Crawford and southern Erie counties.

Topography—Rolling agricultural land with wide valleys; basin within the glaciated region, containing many small ponds and swamps.

Channel—Tortuous, through shale and glacial deposits; bordered with swamps and flatlands.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Rootville (76), Townville (317), Little Cooley (191).

Industries—Agriculture.

Utilization—Water power for a few small mills.

MUDDY CREEK

Tributary to Monongahela River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Jefferson Township, eastern Greene County; elevation 1,170.

Course—Northeasterly, by a circuitous route, to Monongahela River.

Mouth—At Jacobs Ferry; elevation 760.1.

Length—Sixteen miles.

Drainage Area—Contains 32.0 square miles in eastern Greene County.

Topography—Hilly in upper and lower basin; middle section is a flat rolling area 1 to 3 miles wide.

Channel—Sinuous, through shale and sandstone, in upper and lower courses; tortuous, through clay and gravel, in middle course.

Profile—Rate of fall per mile: from elevations 1,100 to 900, 12.5 miles, 16 feet; thence to mouth, 3 miles, 46.6 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Khedive (80), Carmichaels (478).

Industries—Agriculture.

MUDDY CREEK

Tributary to Conestoga Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Robeson Township, southern Berks County; elevation 770.

Course—Westerly into Lancaster County; thence southwesterly to Conestoga Creek.

Mouth—Near Hinkletown; elevation 319.

Length—Fourteen and one-half miles.

Drainage Area—Contains 50.7 square miles in southern Berks and northeastern Lancaster counties.

Topography—Broken and hilly in upper basin; rolling agricultural country in lower basin.

Channel—Sinuous, through sandstone and limestone formations.

Profile—Rate of fall, from elevation 600 to mouth, 14 miles, 20.1 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Muddycreek (220), Bowmansville (400), Terre Hill (882), Adamstown (675).

Industries—Agriculture.

Utilization—Water power for a few small mills.

MUDDY CREEK

Tributary to Slippery Rock Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Clay Township, northern central Butler County; elevation 1,300.

Course—Westerly into Lawrence County to Slippery Rock Creek.

Mouth—One mile northeast of Rose Point; elevation 1,030.

Length—Twenty-one and one-half miles.

Drainage Area—Contains 58.5 square miles in western Butler and eastern Lawrence counties.

Topography—Broad, flat valleys, flanked with hills 200 to 300 feet high, narrowing in places. A quarter of a mile above mouth, stream plunges over a 30-foot ledge in the sandstone formation and thence maintains a steep slope to mouth.

Channel—From source to a point 3.5 miles above mouth, tortuous through clay, in broad, flat valley; it then passes through narrow defile for next half mile with rapid fall, continuing in a more direct course for 2 miles through another wide valley; last mile in a narrow canyon strewn with large sandstone boulders. Oil and gas.

Profile—Rate of fall per mile: from source to elevation 1,160, 17.5 miles, 8 feet; thence to elevation 1,140, 0.5 mile, 40 feet; thence to elevation 1,100, 3 miles, 13.3 feet; thence to mouth, 0.5 mile, 140 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Euclid (72), Prospect (346).

Industries—Agriculture; oil and gas wells.

Railroads—Western Allegheny follows stream from source to mouth; Bessemer & Lake Erie traverses basin.

Utilization—Western Allegheny Railroad water supply at Queen Junction.

MUDDY CREEK (INCLUDING NORTH BRANCH)

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—North Branch in Windsor Township, eastern York County; elevation 840. Main stream formed by junction of North Branch and South Branch, at Muddy Creek Forks, southeastern York County; elevation 360.

Course—Southeasterly and northeasterly to Susquehanna River.

Mouth—Four miles southeast of McCall Ferry; elevation 97.

Length—North Branch, 11.5 miles; main stream, 15.5 miles.

Drainage Area—Total, 138.7 square miles; in Pa., 137.1 square miles in southeastern York County.

Topography—Rolling agricultural country in headwaters and upper basin; narrow main valley, flanked with precipitous, well wooded hills in lower course.

Channel—Sinuous, through schist and gneiss in upper course; thence through gneiss and slate formations, being tortuous in places and gorge-like.

Profile—Rate of fall per mile: from elevations 700 to 500, 4 miles, 50 feet; thence to Castle Fin, elevation 200, 18 miles, 16.7 feet; thence to mouth, 4 miles, 25.8 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Red Lion (2,092), Felton (241), Winterstown (238), Muddy Creek Forks (236), Stewartstown (674), Fawn Grove (240), Bridgeton (372).

Industries—Cigar and furniture factories; slate quarries; agriculture.

Railroads—Maryland & Pennsylvania traverses basin and follows North Branch and main stream from source to Castle Fin; New Park & Fawn Grove traverses basin.

Utilization—Water power by numerous mills, including two hydroelectric plants.

MUDDY CREEK, SOUTH BRANCH

Tributary to Muddy Creek. Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Hopewell Township, southern York County; elevation 850.

Course—Northeasterly, by a circuitous route, to Muddy Creek.

Mouth—At Muddy Creek Forks; elevation 360.

Length—Twelve miles.

Drainage Area—Contains 28.0 square miles in southeastern York County.

Topography—Broken and hilly; narrow valley flanked with steep hills.

Channel—Tortuous, through schist and gneiss formations.

Profile—Rate of fall per mile: from elevations 700 to 500, 5 miles, 40 feet; thence to mouth, 5.5 miles, 25.5 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Stewartstown (674), Draco (68), Hopewell Center (100), Gatchellville (178), Muddy Creek Forks (236).

Industries—Agriculture.

Railroads—New Park & Fawn Grove traverses basin.

MUDDY RUN

Tributary to Clearfield Creek.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Reade Township, northeastern Cambria County.

Course—Northerly into Clearfield County to Clearfield Creek.

Mouth—One-half mile south of Madera; elevation 1,319.

Length—Ten miles.

Drainage Area—Contains 30.6 square miles in northeastern Cambria and southeastern Clearfield counties.

Topography—Broken and hilly; main valley has narrow alluvial flood plains flanked with rolling hills.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Profile—Rate of fall, from elevation 1,380 to mouth, 5.5 miles, 11.1 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Beccaria (120), Smithmill (207), Smokerun (300), Ramey (1,045).

Industries—Coal mines; agriculture.

Railroads—Pennsylvania traverses basin and follows stream from near Beccaria to mouth.

MUNCY CREEK

Tributary to West Branch Susquehanna River.

Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Davidson Township, southeastern Sullivan County.

Course—Southwesterly into Lycoming County to West Branch Susquehanna River.

Mouth—Near Muncy.

Length—Thirty-three miles.

Drainage Area—Contains 216.3 square miles, embracing portions of Sullivan, Lycoming, Columbia and Montour counties.

Topography—Rough and hilly; in upper basin valleys are narrow, flanked with steep hills; in lower basin, below Picture Rocks, main valley has broad agricultural lands.

Geology—Shale and sandstone formations; some limestone near mouth.

Channel—Sinuous, through shale and sandstone formations, cutting into limestone bed near mouth.

Lakes—Eaglesmere Lake (116.4 acres), Hunters Lake (90.2 acres), Highland Lake (10 acres).

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Nordmont (118), Eagles Mere (184), Sonestown (310), Muncy Valley (266), Picture Rocks (576), Hughesville (1,650), Lairdsville (335).

Industries—Clay mines; agriculture; furniture factories.

Railroads—Williamsport & North Branch traverses basin and follows stream from Nordmont to Hughesville; Susquehanna & Eagles Mere traverses basin.

Utilization—Williamsport & North Branch Railroad water supply at Sonestown. Small hydroelectric plant on Trout Run. Water power for numerous small mills.

MUNCY (LITTLE) CREEK

Tributary to Muncy Creek.

Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Jordan Township, southeastern Lycoming County.

Course—Southwesterly and northwesterly to Muncy Creek.

Mouth—One mile northwest of Clarkestown.

Length—Twenty-two miles.

Drainage Area—Contains 84.0 square miles, embracing portions of Sullivan, Lycoming, Columbia and Montour counties.

Topography—Rough and hilly; in upper basin valleys are narrow, flanked with steep hills; broad agricultural country near mouth.

Channel—Sinuous, through shale and sandstone formations.

Lakes—Beaver Lake (6 acres).

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Lairdsville (335), Moreland (236), Opp (30), Clarkestown (160).

Industries—Agriculture.

Utilization—Water power for a few small mills.

NESCOPECK CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Dennison Township, southeastern Luzerne County, 1 mile northwest of White Haven; elevation 1,300.

Course—Southwesterly, by a circuitous route, to North Branch Susquehanna River.

Mouth—At Nescopeck; elevation 478.

Length—Thirty-five miles.

Drainage Area—Contains 172.9 square miles, embracing portions of Luzerne, Schuylkill and Columbia counties.

Topography—Mountainous; upper and middle basin has rolling country lying between Nescopeck Mountain on north and Buck Mountain on south.

Channel—Sinuous, through swamps and flatlands in upper and middle basin; cuts through Nescopeck Mountain and continues 7 miles in a gorge to Susquehanna flats at mouth.

Profile—Rate of fall per mile: from source to elevation 1,000, 16 miles, 18.8 feet; thence to mouth, 19 miles, 27.5 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Freeland (6,197), Drifton (2,129), West Hazleton (4,715), Hazleton (25,452), Conyngham (406), Nescopeck (1,578).

Industries—Coal mines; agriculture.

Pollution—Waste from coal mines on Little Nescopeck and Black creeks.

Railroads—Pennsylvania traverses basin and follows stream from Tank to mouth; Lehigh Valley traverses basin.

Utilization—Water power for small mills.

NESHAMINY CREEK

Tributary to Delaware River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—Formed by junction of North and West branches at Chalfont, New Britain Township, Bucks County; elevation 232.

Course—Southeasterly to Delaware River, forming southwestern boundary of Buckingham, Wrightstown, Newtown, Middletown and Bristol townships, and northeastern boundary of Warwick, Northampton, Southampton and Bensalem townships.

Mouth—One and one-half miles southeast of Eddington, 12 miles above Philadelphia; tidewater.

Length—Thirty-eight miles.

Drainage Area—Contains 236.5 square miles in southern Bucks and northern Montgomery counties.

Topography—Rolling agricultural country in Piedmont Plateau.

Geology—Red shales and sandstone formations, containing intrusions of trap rock.

Channel—Tortuous, through broad, extensively cultivated agricultural valley.

Profile—Rate of fall per mile: from source to elevation 100, 18.5 miles, 7.1 feet; thence to elevation 20, 13 miles, 6.2 feet; thence 6.5 miles to mouth.

HYDROGRAPHIC FEATURES

Gaging Station—Established near Rushland, below junction of Little Neshaminy Creek, June 1884; discontinued December 1913.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Chalfont (303), Doylestown (3,304), Bridge Valley (178), Buckingham (266), Newtown (1,675), Langhorne (895), Oakford (176), Hulmeville (468), Newportville (340), Eddington (183).

Industries—Agriculture; sawmill.

Railroads—Pennsylvania and Philadelphia & Reading traverse basin.

Utilization—Water supply by Springfield Consolidated Water Co., and in conjunction with Newtown Creek and Mill Creek for water power by a few small grist mills.

NESHAMINY CREEK, NORTH BRANCH

Tributary to Neshaminy Creek. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Plumstead Township, eastern Bucks County; elevation 450.

Course—Southwesterly to Neshaminy Creek.

Mouth—At Chalfont; elevation 232.

Length—Eleven miles.

Drainage Area—Contains 32.1 square miles in central Bucks County.

Topography—Rolling agricultural country, highly developed.

Channel—Sinuous, through shale and sandstone formations, containing intrusions of trap rock.

Profile—Rate of fall, from source to mouth, 19.8 feet per mile.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Gardenville (185), Danboro (275), Chalfont (303).

Industries—Agriculture.

NESHAMINY CREEK, WEST BRANCH

Tributary to Neshaminy Creek. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Hilltown Township, western Bucks County; elevation 500.

Course—Southerly into Montgomery County; thence easterly into Bucks County to Neshaminy Creek.

Mouth—At Chalfont; elevation 232.

Length—Nine miles.

Drainage Area—Contains 26.1 square miles in northern Montgomery and western Bucks counties.

Topography—Rolling agricultural country, extensively developed.

Channel—Sinuous, through shale and sandstone formations, containing intrusions of trap rock.

Profile—Rate of fall per mile: from source to Hatfield, elevation 300, 2.5 miles, 80 feet; thence to mouth, 6.5 miles, 10.5 feet.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Hatfield (705), Colmar (300), Chalfont (303).

Industries—Agriculture.

Railroads—Philadelphia & Reading traverses basin and follows stream in headwaters and lower course.

NESHAMINY (LITTLE) CREEK

Tributary to Neshaminy Creek. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Montgomery Township, eastern Montgomery County; elevation 460.

Course—Easterly into Bucks County to Neshaminy Creek.

Mouth—Two miles northeast of Grenoble; elevation 118.

Length—Sixteen miles.

Drainage Area—Contains 43.1 square miles in eastern Montgomery and western Bucks counties.

Topography—Rolling agricultural country, extensively developed.

Channel—Sinuous, through shale and sandstone formations, containing intrusions of trap rock.

Profile—Rate of fall per mile: from source to elevation 300, 2.5 miles, 64 feet; thence to mouth, 13.5 miles, 13.5 feet.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Eureka (147), Pleasant Valley (250), Prospectville (196), Jamison (103), Hartsville (132).

Industries—Agriculture.

Railroads—Philadelphia & Reading traverses basin and follows stream in lower course.

NESHANNOCK CREEK

Tributary to Shenango River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—Formed by junction of Otter Creek and Cool Spring Creek, at Mercer, southern Mercer County; elevation 1,085.

Course—Southwesterly into Lawrence County to Shenango River.

Mouth—At New Castle; elevation 785.

Length—Twenty-four and one-half miles.

Drainage Area—Contains 244.5 square miles in southern Mercer and northern Lawrence counties.

Topography—Rolling hills and wide valley in upper basin; gradually narrowing valley with steeper slopes from above Volant to Neshannock Falls, being gorge-like in places; lower basin hilly with wide valley.

Geology—Shale and sandstone formations, containing coal.

Channel—Winding, through glacial drift and swamps in upper course; rough and steep in middle and lower courses. Neshannock Falls, 1.5 miles above mouth of Little Neshannock Creek, is a wild and rocky spot.

Profile—Rate of fall per mile: from source to Volant, elevation 1,000, 10.5 miles, 8.1 feet; thence to mouth, 14 miles, 15.4 feet.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At East Brook Station, January 1914. At New Castle, August 1909.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Mercer (2,026), New Wilmington (758), New Castle (36,280).

Industries—Iron and steel works; blast furnaces; foundries; enamel ware; pottery and brick works; chemical works; stove works; silk mill; flour mill; extensive agriculture.

Railroads—Pennsylvania Lines West of Pittsburgh traverse basin and follow stream from source to mouth; Bessemer & Lake Erie and Sharpsville traverse basin.

Utilization—Main stream for Pennsylvania Railroad water supply at Leesburg; industrial supply at New Castle. Otter Creek for water supply at Mercer. Water power for woolen, pulp and grist mills.

NESHANNOCK (LITTLE) CREEK

Tributary to Neshannock Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Jefferson Township, central Mercer County, 5 miles northwest of Mercer; elevation 1,200.

Course—Southerly into Lawrence County to Neshannock Creek.

Mouth—At Wilmington Junction; elevation 937.

Length—Twelve and one-half miles.

Drainage Area—Contains 51.2 square miles in southern Mercer and northern Lawrence counties.

Topography—Rolling hills; wide valleys; a few small swamps.

Channel—Through clay and gravel of glacial drift.

Profile—Rate of fall, from elevation 1,100 to mouth, 11.5 miles, 14.2 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Neshannock (200), Bethel (107), New Wilmington (758).

Industries—Agriculture.

Railroads—Sharpsville traverses basin and follows stream in lower course.

NESQUEHONING CREEK

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Rush Township, northeastern Schuylkill County; elevation 1,540.

Course—Northeasterly into Carbon County to Lehigh River.

Mouth—Opposite Coalport; elevation 568.

Length—Thirteen miles.

Drainage Area—Contains 33.8 square miles in northeastern Schuylkill and southwestern Carbon counties.

Topography—Mountainous; narrow valley flanked by Broad Mountain on northwest and Nesquehoning Mountain on southeast; most of tributaries from north.

Channel—Sinuous, through shale and sandstone formations, containing deposits of anthracite; in a narrow gorge for last 3 miles.

Profile—Rate of fall per mile: from elevations 1,000 to 980, 3.5 miles, 5.7 feet; thence to mouth, 8.5 miles, 48.5 feet.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Hauto (273), Nesquehoning (1,655).

Industries—Coal mines.

Pollution—Waste from coal mines below Hauto.

Railroads—Central Railroad of New Jersey follows stream from headwaters to mouth.

Utilization—Industrial and domestic supply at Lansford, Coaldale, Nesquehoning and Hauto, by Panther Valley Water Co., who also utilize 3 tributaries, Bear Creek, Broad Run and Deep Run.

NEWPORT CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Conyngham Township, western Luzerne County; elevation 940.

Course—Northeasterly to North Branch Susquehanna River.

Mouth—At Nanticoke; elevation 513.

Length—Seven and one-half miles.

Drainage Area—Contains 22.4 square miles in western Luzerne County.

Topography—Mountainous; basin lies between ridge bordering North Branch Susquehanna River and Penobscot Mountain.

Channel—Sinuous, through shale and sandstone formations, containing deposits of anthracite; bordered by gently sloping hills.

Profile—Rate of fall per mile: from source to elevation 600, 3.5 miles, 97.1 feet; thence to mouth, 4 miles, 21.8 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Glenlyon (3,200), Peely (965), Wanamie (1,718), Nanticoke (18,877).

Industries—Coal mines.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream from Glenlyon to mouth; Central Railroad of New Jersey traverses basin.

Utilization—Main stream and tributaries for water supply by Spring Brook Water Supply Co. at Wanamie. There are 5 storage reservoirs on main stream and tributaries.

NINEMILE RUN

Tributary to Loyalhanna Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Unity Township, central Westmoreland County.

Course—Northeasterly to Loyalhanna Creek.

Mouth—Two miles southeast of Latrobe; elevation 987.

Length—Eight miles.

Drainage Area—Contains 20.6 square miles in central Westmoreland County.

Topography—Rolling hills; southeastern portion of basin on slope of Chestnut Ridge.

Channel—Sinuous, through shale and sandstone formations; bordered with alluvial flood plains in lower course.

Profile—Rate of fall, from elevation 1,080 to mouth, 3.5 miles, 26.6 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Whitney (850), Hostetter (820), Baggaley (1,350), Youngstown (323).

Industries—Extensive coal mining and coking; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin.

Utilization—Headwaters and several small tributaries by Westmoreland Water Co. at Greensburg, Jeannette and vicinity. Armel Run for industrial supply by H. C. Frick Coke Co.; Indian Camp Run for industrial supply by Puritan Water Co. near Baggaley.

NIPPENOSE CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Crawford Township, southeastern Clinton County.

Course—Northeasterly into Lycoming County; thence northerly to West Branch Susquehanna River.

Mouth—At Antes Fort.

Length—Seven and one-half miles.

Drainage Area—Contains 58.2 square miles in southeastern Clinton and southwestern Lycoming counties.

Topography—Mountainous in headwaters; stream cuts through Bald Eagle Ridge.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Rauchtown (175), Oriole (110), Antes Fort (266).

Industries—Agriculture.

NORTHKILL CREEK

Tributary to Tulpehocken Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—On boundary between Upper Tulpehocken and Upper Bern townships, Berks County; elevation 1,300.

Course—Southerly to Tulpehocken Creek.

Mouth—At Bernville.

Length—Ten miles.

Drainage Area—Contains 42.3 square miles in northwestern Berks County.

Topography—Mountainous in headwaters; main basin lies in rough and hilly region of Piedmont Plateau just south of Blue Mountain.

Channel—Sinuous, through slate formation.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Shartlesville (476), Strausstown (600), Tulpehocken (290), Bernville (308).

Industries—Agriculture.

Utilization—Water power for numerous small grist mills.

OCTORARO CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—Formed by junction of East and West branches, on Lancaster-Chester county boundary; elevation 240.

Course—Southwesterly into Maryland to Susquehanna River, forming Lancaster-Chester county boundary in Pennsylvania.

Mouth—Near Rowlandsville, Md.; elevation 35.

Length—In Pa., 12.5 miles.

Drainage Area—Total, 210.2 square miles; in Pa., 175.5 square miles in southeastern Lancaster and southwestern Chester counties.

Topography—Broken and hilly; valley flanked with rolling hills, being steep in places.

Channel—Sinuous, through slate and serpentine formations; in a deep ravine near state boundary.

Profile—Rate of fall, from source to state boundary, on Lancaster-Chester county boundary, elevation 168, 5.8 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Christiana (934), Atglen (546), Oxford (2,390), Nottingham (300).

Industries—Agriculture.

Railroads—Pennsylvania, Lancaster, Oxford & Southern and Philadelphia, Baltimore & Washington traverse basin.

Utilization—Main stream and West Branch for industrial supply by Pennsylvania Railroad Co. Water power by a few grist mills.

OCTORARO CREEK, EAST BRANCH

Tributary to Octoraro Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Highland Township, western Chester County, 1.5 miles south of Parkesburg; elevation 660.

Course—Southwesterly to join West Branch and form Octoraro Creek, being Lancaster-Chester county boundary for last 16 miles.

Mouth—Four miles northwest of Oxford; elevation 240.

Length—Twenty and one-half miles.

Drainage Area—Contains 90.4 square miles in southeastern Lancaster and southwestern Chester counties.

Topography—Broken and hilly; main valley flanked with rolling hills, being steep in places.

Channel—Sinuous, through slate formation, bordered with flatlands in upper course.

Profile—Rate of fall, from elevation 500 to mouth, 19.5 miles, 13.3 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Smyrna (125), Christiana (934), Atglen (546), Octoraro (104), Homeville (200).

Industries—Hardware and paper manufacturing; agriculture.

Railroads—Pennsylvania traverses basin and follows stream in upper course.

Utilization—Water power for small mills.

OCTORARO CREEK, WEST BRANCH

Tributary to Octoraro Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Nickel Mines Run and Meetinghouse Creek, in Bart Township, southeastern Lancaster County; elevation 562.

Course—Southerly, by a circuitous route, to join East Branch and form Octoraro Creek.

Mouth—Four miles northwest of Oxford; elevation 240.

Length—Thirteen miles.

Drainage Area—Contains 48.4 square miles in southeastern Lancaster County.

Topography—Broken and hilly; main valley flanked with rolling hills.

Channel—Sinuous, through sandstone, limestone and slate formations.

Profile—Rate of fall, from source to mouth, 24.8 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Nickel Mines (197), Bart (231), Bartville (152), Kirkwood (200), White Rock (177).

Industries—Nickel mines; agriculture.

Railroads—Lancaster, Oxford & Southern traverses basin and follows stream in lower course; Pennsylvania traverses basin.

Utilization—Pennsylvania Railroad water supply.

OHIO RIVER

Tributary to Mississippi River. Basin: Ohio.

NATURAL FEATURES

Source—Formed by junction of Allegheny and Monongahela rivers at Pittsburgh, Allegheny County; elevation 703.

Course—Northwesterly into Beaver County to junction of Beaver River at Rochester; thence southwesterly, crossing state boundary near junction of Little Beaver River, to Mississippi River.

Mouth—At Cairo, Ill.

Length—Total, 967 miles; in Pa., 39.4 miles.

Drainage Area—Total above Pennsylvania-Ohio boundary, including drainage in New York, West Virginia and Maryland, 22,117 square miles. In New York, 1,934 square miles; in West Virginia and Maryland, 4,612 square miles; in Pennsylvania, 15,571 square miles, or 34.5 per cent of total area of state, embracing all of 14 and portions of 10 counties in western end of state.

Topography—Basin lies within region known as the Allegheny Plateau. In the northern section are found lakes and swamps of glacial origin in the deposited drift. Country in general is of a rolling nature with wide agricultural valleys. The eastern portions are of a rough and hilly nature, being almost mountainous in the southeast and southern portions. Country is sparsely wooded, except in northeastern portion of Allegheny basin and in the mountainous region of Monongahela basin to the southeast.

Geology—Principally shale and sandstone formations, containing rich deposits of bituminous coal, oil and gas.

Channel—Sinuous, through a narrow valley flanked with steep hills, 500 to 600 feet high, and containing little lowland. Channel is broad and shallow, but has been improved for navigation by Federal Government by a series of 7 locks and dams within Pennsylvania, affording a 9-foot channel. The system of government locks and dams extends down to Wheeling, W. Va., making a 9-foot channel down to that point for all stages of water.

Profile—Rate of fall, from Pittsburgh to state boundary, 1.2 feet per mile. The following table gives pool levels and lifts at dams, with distances from Pittsburgh:

Location	Distance from Pittsburgh	Lift	Pool Level
	Miles	Feet	Feet
Point Bridge, Pittsburgh,	0.0	....	708.0
Lock No. 1, Davis Island Dam,	4.72	3.1	703.0
Lock No. 2,	9.16	7.8	699.9
Lock No. 3,	10.96	7.7	693.1
Lock No. 4,	18.42	7.6	684.4
Lock No. 5,	23.92	8.5	676.8
Lock No. 6,	28.90	5.7	668.3
Lock No. 7,	36.15	6.9	662.6
State boundary, Pool No. 8,	39.40	....	655.7

Precipitation—Mean annual, 35 to 55 inches.

NATURAL RESOURCES

Agriculture—This resource is extensively developed in many parts of the basin and forms one of the chief industries.

Minerals—The richest deposits of bituminous coal in the country are located in the Pittsburgh district, which extends up the Monongahela River on the east and in the lower eastern portion of the Allegheny basin. Valuable deposits of oil and gas are found in the Allegheny basin.

Timber—The only wooded areas of importance are located in the northeastern portion of the Allegheny basin and southeastern or mountainous region of the Monongahela basin.

Water Power—There are no water power developments on the main Ohio River. The Beaver River has been developed to a limited extent in its lower course.

ARTIFICIAL FEATURES

Towns—Johnstown (55,482), McKeesport (42,694), Butler (20,728), New Castle (36,280), Pittsburgh (533,905), Bellevue (6,323), McKees Rocks (14,702), Coraopolis (5,252), Sewickley (4,479), Ambridge (5,205), Freedom (3,060), Rochester (5,903), Beaver (3,456), Monaca (3,376).

Industries—Iron and steel mills; coal mines; coke ovens; quarries; glass works; brick works; timber; manufacturing; agriculture.

Railroads—Follow main stream and principal tributaries. Many traverse basin.

Utilization—Industrial and domestic supply at towns along the river, including Pittsburgh (South Side), Coraopolis, Sewickley, Edgeworth, Ambridge, Baden, Colonia, Monaca, Beaver and Midland; at Woodlawn by Jones & Laughlin Steel Co.; at Alliquippa by several steel plants. The improvement of channel by Federal Government system of 7 locks and dams within state gives a 9-foot channel for all stages of water. This is utilized chiefly for the shipment of coal.

OIL CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—Canadotha Lake, in Bloomfield Township, northeastern Crawford County.

Course—Southeasterly to Titusville; thence southerly into Venango County to Allegheny River.

Mouth—At Oil City.

Length—Thirty-five miles.

Drainage Area—Contains 335.3 square miles, embracing portions of Erie, Crawford, Warren and Venango counties.

Topography—Upper basin (above Titusville) lies in glaciated area and has rolling country containing lakes and swamps. Below terminal moraine the country is more rugged; main valley has wide alluvial flood plains flanked with steep hills. Well wooded below Titusville.

Geology—Shale and sandstone formations, containing rich oil and gas deposits, and some coal.

Channel—Sinuous, through swamps, lakes and flat country in upper basin; bordered with wide alluvial flood plains in lower basin.

Lakes—Canadotha Lake (169.9 acres), Clear Lake (117.5 acres).

HYDROGRAPHIC FEATURES

Gaging Station—Established at Rouseville, October 1909.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Spartansburg (460), Centerville (264), Tryonville (216), Hydetown (413), Titusville (8,533), Rouseville (648), Oil City (15,657).

Industries—Extensive oil and gas fields; oil refineries; manufacturing plants; timber; tanneries; acid works; railroad shops.

Pollution—Waste from oil and gas wells, tanneries and acid works.

Railroads—Pennsylvania traverses basin and follows stream from source to mouth; Dunkirk, Allegheny Valley & Pittsburgh traverses basin.

Utilization—Water power for small mills.

OIL CREEK, EAST BRANCH

Tributary to Oil Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Concord Township, southeastern Erie County.

Course—Southeasterly into Crawford County; thence southwesterly to Oil Creek.

Mouth—At Centerville.

Length—Thirteen and one-half miles.

Drainage Area—Contains 66.1 square miles in northeastern Crawford and southeastern Erie counties.

Topography—Rolling hills; broad valleys containing lakes and swamps of glacial origin.

Channel—Sinuous, through shale and sandstone formations.

Lakes—Clear Lake (117.5 acres).

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Spartansburg (460), Glyndon (25), Britton Run (72), Centerville (264).

Industries—Agriculture.

Railroads—Pennsylvania follows stream from source to mouth.

Utilization—Water power by grist mills at Spartansburg and Centerville.

ONTELAUNEE CREEK

Tributary to Maiden Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Blue Mountain, Lynn Township, western Lehigh County; elevation 800.

Course—Southerly to New Tripoli; thence southwesterly into Berks County to Maiden Creek.

Mouth—Opposite Kempton; elevation 398.

Length—Eleven and one-half miles.

Drainage Area—Contains 28.3 square miles in western Lehigh and northern Berks counties.

Topography—Generally a broad main valley flanked with mountain ridges, which are eroded by many small mountain streams.

Channel—Sinuous, through slate and sandstone formations.

Profile—Rate of fall per mile: from elevations 700 to 600, 1 mile, 100 feet; thence to elevation 500, 2.5 miles, 40 feet; thence to mouth, 7.5 miles, 13.6 feet.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—New Tripoli (450), Lynnport (200), Jacksonville (206), Wanamakers (125), Steinsville (157).

Industries—Slate quarries; clay banks; agriculture.

Railroads—Philadelphia & Reading follows stream from headwaters to mouth.

OPOSSUM CREEK

Tributary to Conewago Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In South Mountain, Menallen Township, northwestern Adams County; elevation 1,150.

Course—Northeasterly and southeasterly to Conewago Creek.

Mouth—Two and one-half miles east of Biglerville; elevation 525.

Length—Eleven miles.

Drainage Area—Contains 35.1 square miles in southern Cumberland and northern Adams counties.

Topography--Headwaters in South Mountain; stream flows through gap between Bear Mountain and Round Top into more open and rolling country.

Channel—Sinuous, through shale and sandstone formations, containing intrusions of trap rock.

Profile--Rate of fall per mile: from source to elevation 600, 7 miles, 78.6 feet; thence to mouth, 4 miles, 18.8 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Wenks (63), Bendersville (355), Aspers (200), Guernsey (60).

Industries—Agriculture.

Railroads—Philadelphia & Reading traverses basin and follows stream in middle course.

Utilization--Water power by a few grist mills.

OSWAYO CREEK

Tributary to Allegheny River. Sub-basin: **Upper Allegheny.**

NATURAL FEATURES

Source—In Genesee Township, northern Potter County.

Course—Southwesterly to Coneville; thence northwesterly, through McKean County, into New York to Allegheny River.

Mouth—At Mill Grove, N. Y.; elevation 1,430.

Length—In Pa., 23.5 miles.

Drainage Area—Total, 246.0 square miles; in Pa., 158.6 square miles in northwestern Potter and northeastern McKean counties.

Topography—Rough and hilly; wide flat valley in lower course bordered with steep hills.

Channel—Sinuous, through shale and sandstone formations; bordered with wide alluvial flood plains in lower course.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Oswayo (382), Millport (200), Shinglehouse (1,598), Bellrun (164).

Industries—Timber; planing mills; glass works; sand quarries.

Railroads—New York & Pennsylvania traverses basin and follows stream from headwaters to state boundary.

OTTER CREEK

Tributary to Neshannock Creek. Sub-basin: **Main Ohio.**

NATURAL FEATURES

Source—In Perry Township, northern Mercer County; elevation 1,380.

Course—Southeasterly to Neshannock Creek.

Mouth—At Mercer; elevation 1,085.

Length—Sixteen miles.

Drainage Area—Contains 18.7 square miles in central Mercer County.

Topography—Rolling hills and wide valley; many swamps.

Channel—Winding, through swamps, and cutting slightly into glacial drift.

Profile—Rate of fall per mile: from source to elevation 1,140, 3 miles, 80 feet; thence to mouth, 13 miles, 4.2 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Fredonia (443), Mercer (2,026).

Industries—Stove works; silk mill; flour mill; agriculture.

Railroads—Bessemer & Lake Erie traverses basin and follows stream from Fredonia to mouth.

Utilization—Water supply at Mercer; Bessemer & Lake Erie Railroad supply at Mercer Junction.

PAINT CREEK

Tributary to Stony Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Ogle Township, northeastern Somerset County.

Course—Westerly, along Cambria-Somerset county boundary to Stony Creek, forming boundary for last 2.5 miles.

Mouth—Two and one-half miles west of Scalp Level.

Length—Twelve miles.

Drainage Area—Contains 37.0 square miles in northeastern Somerset and southern Cambria counties.

Topography—Broken and hilly.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Windber (8,013), Scalp Level (1,424).

Industries—Coal mines; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin.

Utilization—Little Paint Creek for industrial and domestic supply by Windber Water & Power Co.

PAINT CREEK

Tributary to Deer Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—Formed by junction of Kelley Run and Licking Run, in Farmington Township, northeastern Clarion County.

Course—Southwesterly to join Little Deer Creek and form Deer Creek.

Mouth—At Willsons Mill, 4 miles northwest of Clarion; elevation 1,147.

Length—Twelve miles.

Drainage Area—Contains 39.9 square miles in northern Clarion County.

Topography—Broken and hilly; narrow valley flanked with rolling hills.

Channel—Sinuous, through shale and sandstone formations, containing coal, oil, and some limestone.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Tylersburg (220), Lickingville (321), Leeper (350), Snydersburg (118), Huefner (200).

Industries—Oil; coal; agriculture.

Railroads—Baltimore & Ohio traverses eastern edge of basin.

Utilization—Water power for a small mill at Lickingville.

PANTHER CREEK

Tributary to Little Schuylkill River.

Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Pisgah Mountains, Mauch Chunk Township, Carbon County; elevation 1,150.

Course—Southwesterly into Schuylkill County to Little Schuylkill River.

Mouth—At Tamaqua; elevation 775.

Length—Seven miles.

Drainage Area—Contains 10.9 square miles in southwestern Carbon and northeastern Schuylkill counties.

Topography—Basin lies in narrow valley between Nesquehoning and Pisgah mountains.

Channel—Sinuous, through shale and sandstone formations, containing deposits of anthracite.

Profile—Rate of fall, from source to mouth, 53.6 feet per mile.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Lansford (8,321), Coaldale (5,154), Seek (658), Tamaqua (9,462), Summit Hill (4,209).

Industries—Coal mines; machine shops; foundry; underwear and shirt factory; railroading.

Pollution—Waste from coal mines.

Railroads—Central Railroad of New Jersey follows stream from headwaters to mouth.

Utilization—Industrial supply at numerous coal mines.

PARADISE CREEK (or LITTLE CONEWAGO CREEK)

For description see Little Conewago Creek.

PAXTON CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Lower Paxton Township, southern central Dauphin County; elevation 560.

Course—Southwesterly, by a circuitous route, to Susquehanna River.

Mouth—At Harrisburg; elevation 292.

Length—Twelve and one-half miles.

Drainage Area—Contains 25.3 square miles in southwestern Dauphin County.

Topography—Basin lies south of Blue Mountain and is rolling agricultural country; wide main valley bordered with broad flats in lower course.

Channel—Sinuous, through shale formation in upper basin and limestone in lower basin; through swamps and low flats for lower 5 miles. The old Pennsylvania Canal paralleled stream in lower 5 miles.

Precipitation—Mean annual; 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Linglestown (568), Progress (210), Penbrook (1,462), Harrisburg (64,186).

Industries—Steel mills; railroad yards and shops; agriculture.

Railroads—Pennsylvania and Philadelphia & Reading traverse basin and follow stream in lower course.

Utilization—Flood control works were built above Harrisburg in 1908 for the purpose of ameliorating flood conditions along the creek in Harrisburg. A storage reservoir was constructed above Asylum Run, which diverts excess discharges through a tunnel into Susquehanna River. In 1914-15 the creek channel was improved within the city limits of Harrisburg by lining with concrete, designed to carry a flow of 1,500 c. f. s. This improvement was the first of its kind in the state, and has proved to be an efficient method of flood control.

PENNS CREEK

Tributary to Susquehanna River.

Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—In Gregg Township, southeastern Center County.

Course—Easterly, through Mifflin and Union counties, into Snyder County, forming Union-Snyder county boundary for 6 miles; thence southeasterly to Susquehanna River.

Mouth—Three miles south of Selinsgrove; elevation 405.

Length—Fifty-nine miles.

Drainage Area—Contains 558.0 square miles, embracing portions of Center, Mifflin, Union and Snyder counties.

Topography—Mountainous; above New Berlin main valley is narrow, flanked with steep hills; broad and fertile in lower course.

Geology—Shale, sandstone and limestone formations, containing some iron ore. Limestone is found principally in upper basin, where streams flow underground for stretches.

Channel—Tortuous, through slate and limestone beds, forming gaps in mountains and gorges in places.

Profile—Rate of fall, from elevation 460 to mouth, 9.5 miles, 5.8 feet per mile.

Springs—At Penns Cave, near source, there is a large limestone spring.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Center Hall (500), Spring Mills (500), Millheim (626), Coburn (450), Penns Creek (400), New Berlin (527), Selinsgrove (1,473), Middleburg (531).

Industries—Timber; agriculture; planing mill; shoe factory.

Railroads—Pennsylvania traverses basin and follows stream from Rising Springs to Millmont; New Berlin & Winfield traverses basin.

Utilization—Water supply at Selinsgrove. Water power for several small grist mills; hydroelectric plant at Millmont.

PENNSYLVANIA FORK

Tributary to Dunkard Creek. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In West Virginia, near Pennsylvania boundary; elevation 1,230.

Course—Northeasterly, crossing state boundary 5 times, to Dunkard Creek.

Mouth—At Brave; elevation 962.

Length—Ten and one-half miles.

Drainage Area—Total, 37.8 square miles; in Pa., 32.6 square miles in southern Greene County.

Topography—Hilly; valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall, from elevation 1,100 to mouth, 9 miles, 15.3 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sand Rock (27), Jollytown (110), Brave (75).

Industries—Oil; gas; agriculture.

PENNSYLVANIA FORK

Tributary to Fish Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Jackson Township, southwestern Greene County; elevation 1,380.

Course—Westerly into West Virginia to Fish Creek, crossing state boundary at elevation 960.

Mouth—At Kausooth, W. Va.

Length—In Pa., 10 miles.

Drainage Area—In Pa., 36.6 square miles in southwestern Greene County.

Topography—Hilly; valleys flanked with steep hills 400 to 500 feet high.

Channel—Sinuous, through clay and sandstone formations.

Profile—Rate of fall, from elevation 1,100 to state boundary, 8 miles, 17.5 feet per mile.

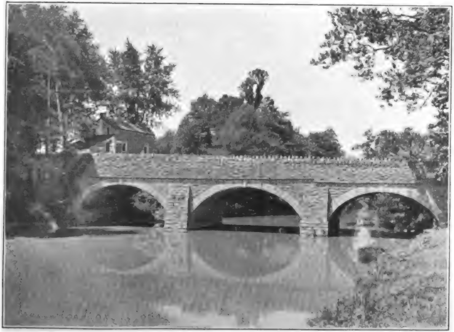
Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—New Freeport (240), Deep Valley (140).

Industries—Coal mines; oil; gas; agriculture.

Plate XII



Pennypack Creek at Holmesburg

PENNYPACK CREEK

Tributary to Delaware River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—Near Mapleglen, in Upper Dublin Township, Montgomery County; elevation 360.

Course—Southeasterly into Philadelphia County to Delaware River.

Mouth—One and one-half miles southeast of Holmesburg; tidewater.

Length—Twenty-two miles.

Drainage Area—Contains 56.0 square miles, embracing portions of Bucks, Montgomery and Philadelphia counties.

Topography—Rolling agricultural country, highly developed and thickly settled.

Channel—Sinuous, through gneiss formation; in a small ravine in lower course.

Profile—Rate of fall per mile: from source to Hatboro, elevation 200, 4.5 miles, 35.6 feet; thence to Valley Falls, elevation 100, 6.5 miles, 15.4 feet; thence to elevation 20, 8.5 miles, 9.4 feet; thence 2.5 miles to mouth.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Mapleglen (46), Hatboro (963), Willow Grove (750), Bethayres (318), Huntingdon Valley (328), Rockledge (879); suburban towns of Philadelphia, including Fox Chase, Bustleton, Collegeville, Holmesburg and Liddonfield.

Industries—Agriculture.

Railroads—Pennsylvania and Philadelphia & Reading traverse basin, the latter following stream from Woodmont to Walnut Hill.

Utilization—Main stream and Sandy Run for water supply by Philadelphia & Bristol Water Co. at Holmesburg, Tacony and Wissinoming; main stream for Pennsylvania Railroad supply at Heaton. Water power for a few small grist mills.

PEQUEA CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Welsh Mountain, Salisbury Township, eastern Lancaster County; elevation 820.

Course—Southwesterly, by a circuitous route, to Susquehanna River.

Mouth—At Pequea Creek; elevation 166.

Length—Forty-five miles.

Drainage Area—Contains 153.4 square miles in western Chester and southern central Lancaster counties.

Topography—Broad agricultural valley bordered with broken, hilly country; main valley becomes narrow and flanked with steep hills near mouth.

Channel—Tortuous in places through extensive limestone formation; lower 3 miles in a gorge carved in gneiss formation.

Profile—Rate of fall per mile: from source to elevation 500, 3.5 miles, 91.4 feet; thence to elevation 400, 5 miles, 20 feet; thence to elevation 200, 33.5 miles, 6.0 feet; thence to mouth, 3 miles, 11.3 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Gap (800), Vintage (278), Intercourse (420), Paradise (478), Gordonville (413), Strasburg (885), Quarryville (739), New Providence (400), Lampeter (368).

Industries—Canning; creameries; agriculture.

Railroads—Pennsylvania traverses basin.

Utilization—Water power by three hydroelectric plants and numerous small grist mills.

PERKIOMEN CREEK

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—Near Seisholtzville, in Longswamp Township, Berks County; elevation 875.

Course—Southeasterly into Montgomery County; thence southerly to Schuylkill River.

Mouth—Near Perkiomen Junction; elevation 73.

Length—Thirty-seven and one-half miles.

Drainage Area—Contains 361.8 square miles, embracing portions of Berks, Lehigh, Bucks and Montgomery counties.

Topography—Broken and hilly country within Piedmont Plateau; irregular main valley, varying from broad rolling agricultural land to narrow stretches flanked with steep, high hills.

Geology—Gneiss formation, containing intrusions of trap rock.

Channel—Sinuous, through a valley varying from narrow stretches between steep hills and banks, to broad alluvial flood plains at foot of gentle slopes.

Profile—Rate of fall per mile: from source to elevation 400, 5.5 miles, 86.4 feet; thence to elevation 200, 13.5 miles, 14.8 feet; thence to mouth, 18.5 miles, 6.9 feet.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Frederick, August 1884; discontinued December 1913. At Graters Ford, June 1914.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Pennsburg (1,141), East Greenville (1,235), Green Lane (372), Perkiomenville (368), Perkasie (2,779), Sellersville (1,572), Collegeville (621), Schwenkville (381), Telford (871), Souderton (1,875).

Industries—Cigar factories; agriculture; shirt factory; planing mill; quarries; summer resorts.

Railroads—Philadelphia & Reading traverses basin and follows stream from palm to mouth.

Utilization—Water supply at East Greenville; Philadelphia & Reading railroad supply at Green Lane. A small tributary for water supply at Pennsburg. Water power for numerous small grist mills. Ice harvesting above Perkiomenville.

PERKIOMEN CREEK, NORTHEAST BRANCH

Tributary to Perkiomen Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Bedminster Township, northern Bucks County; elevation 440.

Course—Southwesterly into Montgomery County to Perkiomen Creek.

Mouth—Near Schwenkville; elevation 128.

Length—Twenty-four miles.

Drainage Area—Contains 62.2 square miles in northwestern Bucks and northern Montgomery counties.

Topography—Rolling agricultural country; wide valley flanked with gently sloping hills.

Channel—Sinuous, through red shale and sandstone formations, containing intrusions of trap rock.

Profile—Rate of fall, from source to mouth, 13 feet per mile.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Perkasie (2,779), Sellersville (1,572), Telford (871), Harleysville (450).

Industries—Cigar factories; shirt factory; agriculture; planing mill; summer resorts.

Railroads—Philadelphia & Reading traverses basin.

PETERS CREEK

Tributary to Monongahela River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—Near Thomas, Nottingham Township, eastern Washington County; elevation 1,150.

Course—Northeasterly into Allegheny County to Monongahela River.

Mouth—Near Mendelssohn; elevation 715.2.

Length—Sixteen miles.

Drainage Area—Contains 52.1 square miles in eastern Washington and southern Allegheny counties.

Topography—Hilly; main valley has wide flats in lower course and at mouth, and is hemmed in by steep hills.

Channel—Sinuous, through shale and sandstone formations; bordered with broad alluvial flats in lower course.

Profile—Rate of fall, from elevation 1,100 to mouth, 15.5 miles, 24.8 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Venetia (301), Finleyville (644), Gastonville (500), Clairton (3,326), Blair Station (600).

Industries—Coal mines; gas; agriculture.

Railroads—Baltimore & Ohio traverses basin and follows stream in upper course; Pennsylvania follows stream in lower course; West Side Belt traverses basin and follows stream in lower course.

Utilization—Industrial supply at Thomson.

PICKERING CREEK

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Upper Uwchlan Township, central Chester County; elevation 455.

Course—Northeasterly to Schuylkill River.

Mouth—Opposite Port Providence; elevation 76.

Length—Fourteen miles.

Drainage Area—Contains 38.4 square miles in northeastern Chester County.

Topography—Rough and hilly; narrow valley flanked with steep, rounded hills.

Channel—Sinuous, through gneiss formation, containing deposits of iron ore.

Profile—Rate of fall, from source to mouth, 27.1 feet per mile.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Uwchlan (196), Lionville (349), Anselma (180), Chester Springs (225), West Pikeland (174), Pickering (105), Williams Corner (103).

Industries—Agriculture; clay banks.

Railroads—Philadelphia & Reading traverses basin and follows stream in upper course; Pennsylvania traverses lower basin.

Utilization—Water supply by Springfield Water Co. for Philadelphia suburbs. Water power for a small mill at Phoenixville.

PIGEON CREEK

Tributary to Monongahela River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—Near Scenery Hill, West Bethlehem Township, southeastern Washington County; elevation 1,200.

Course—Northeasterly to Monongahela River.

Mouth—At Monongahela; elevation 723.5.

Length—Sixteen and one-half miles.

Drainage Area—Contains 58.9 square miles in eastern Washington County.

Topography—Hilly; main valley has wide flats, principally in lower course, and is flanked with steep hills.

Channel—Tortuous, through shale and sandstone formations; bordered with alluvial flats in lower course.

Profile—Rate of fall, from elevation 1,000 to mouth, 15.5 miles. 17.8 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Cokeburg (1,302), Ellsworth (2,048), Bentleyville (1,922), Monongahela (7,598).

Industries—Coal; gas; glass; paper; coke.

Railroads—Pennsylvania traverses basin and follows stream from headwaters to mouth.

PIKE RUN

Tributary to Monongahela River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In West Pike Run Township, southeastern Washington County; elevation 1,340.

Course—Easterly to Monongahela River.

Mouth—At California; elevation 735.

Length—Eleven and one-half miles.

Drainage Area—Contains 28.6 square miles in southeastern Washington County.

Topography—Hilly; main valley is narrow and flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall, from elevation 1,100 to mouth, 11 miles, 33.2 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Beallsville (407), Coal Center (816), California (2,230).

Industries—Coal; gas; agriculture.

PINE CREEK

Tributary to Allegheny River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Marshall Township, northwestern Allegheny County; elevation 1,240.

Course—Southeasterly to Allegheny River.

Mouth—At Etna; elevation 710.

Length—Twenty-three miles.

Drainage Area—Contains 67.2 square miles in northern Allegheny County.

Topography—Broken and hilly; in lower course main valley has alluvial flats flanked with steep hills, 300 to 400 feet high.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from source to elevation 1,100, 2 miles, 70 feet; thence to elevation 1,000, 3 miles, 33.3 feet; thence to mouth, 18 miles, 16.1 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Allison Park (500), Etna (5,830).

Industries—Iron and steel mills near mouth; oil and gas extensively developed; agriculture.

Railroads—Baltimore & Ohio and Buffalo, Rochester & Pittsburgh traverse basin and follow stream from Wildwood to mouth.

PINE CREEK (INCLUDING SOUTH FORK)

Tributary to Allegheny River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—South Fork formed by junction of North and South branches, in Wayne Township, eastern Armstrong County; elevation 1,115. Main stream formed by junction of North Fork and South Fork, in central Armstrong County; elevation 820.

Course—Westerly to Allegheny River.

Mouth—At Mosgrove; elevation 777.

Length—South Fork, 10 miles; main stream, 1 mile.

Drainage Area—Contains 51.5 square miles in eastern Armstrong County.

Topography—Broken and hilly; main valley is narrow and flanked with steep hills, 300 to 400 feet high.

Channel—Sinuous, through shale and sandstone formations; bordered with narrow alluvial flood plains.

Profile—Rate of fall, from source, at Echo, to mouth, 30.7 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Echo (48), Mosgrove (150).

Industries—Coal; gas; agriculture.

Railroads—Buffalo, Rochester & Pittsburgh traverses basin and follows stream from Echo to mouth.

Utilization—Buffalo, Rochester & Pittsburgh Railroad supply at Echo. Water power for a small mill.

PINE CREEK

Tributary to Penns Creek.

Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Pine Creek Hollow and Witmer Run in Haines Township, eastern Center County.

Course—Southwesterly to Penns Creek.

Mouth—At Coburn.

Length—Ten and one-half miles.

Drainage Area—Contains 97.9 square miles in western Union and southeastern Center counties.

Topography—Mountainous; narrow valley flanked with steep hills.

Channel—Tortuous, through shale, sandstone and limestone formations, having one prominent sink in the limestone.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Woodward (587), Aaronsburg (400), Rebersburg (275), Millheim (626), Coburn (450).

Industries—Agriculture.

Utilization—Water power for a few small grist mills.

PINE CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Cushing Creek and Genesee Fork at West Pike, Pike Township, eastern central Potter County; elevation 1,450.

Course—Easterly into Tioga County to junction of Marsh Creek; thence southerly into Lycoming County; thence southwesterly and southeasterly to West Branch Susquehanna River, being Clinton-Lycoming county boundary for last 4.5 miles.

Mouth—Southwest of Jersey Shore.

Length—Seventy-two miles.

Drainage Area—Contains 973.0 square miles, embracing portions of Potter, Tioga, Lycoming and Clinton counties.

Topography—Basin lies within Allegheny Plateau region; rough and hilly with narrow valleys and steep hills; well wooded. Northeastern portion of basin is within the glaciated area, where country is more rolling. Below Galeton main valley broadens and contains some marshy areas in Tioga County, but narrows again and cuts deeply into the table-land in lower course.

Geology—Shale and sandstone formations, containing bituminous coal deposits and some oil.

Channel—Sinuous, through deep, steep-sided valleys, with rough, rocky bed.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Waterville, July 1908.

Precipitation—Mean annual, 30 to 40 inches.

ARTIFICIAL FEATURES

Towns—Galeton (4,027), Wellsboro (3,183), Gaines (725), Blackwell (207), Slate Run (325), Cammal (520), Waterville (183), Jersey Shore (5,381).

Industries—Iron and brass foundry; timber; tanning; chemical works; coal mines.

Railroads—New York Central & Hudson River traverses basin and follows stream from junction of Marsh Creek to mouth; Buffalo & Susquehanna traverses basin and follows stream in upper course; Erie and several small railroads traverse basin.

Utilization—Main stream and West and South branches for water supply by Galeton Water Co.

PINE CREEK

Tributary to Huntington Creek.
Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In North Mountain, Fairmount Township, northwestern Luzerne County.

Course—Southerly into Columbia County to Huntington Creek.

Mouth—At Fishing Creek; elevation 670.

Length—Twelve miles

Drainage Area—Contains 30.8 square miles in northwestern Luzerne and northeastern Columbia counties.

Topography—Rough and hilly; narrow valley flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 1,040 to 900, 1 mile, 140 feet; thence to mouth, 8 miles, 28.8 feet.

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Fairmount Springs (100), Cambria (213), New Columbus (175), Fishing Creek (205).

Industries—Agriculture; timber.

PINE CREEK

Tributary to Caldwell Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Southwest Township, southwestern Warren County.

Course—Southwesterly into Crawford County to Caldwell Creek.

Mouth—Two miles northeast of East Titusville.

Length—Ten miles.

Drainage Area—Contains 29.5 square miles, embracing portions of Warren, Venango and Crawford counties.

Topography—Broken and hilly; basin lies just southeast of terminal moraine.

Channel—Sinuous, through shale and sandstone formations, containing some oil.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Scofield (41), Enterprise (213).

Industries—Agriculture; oil.

PINE CREEK

Tributary to Mahantango Creek.

Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—In Hegins Township, western Schuylkill County; elevation 1,250.

Course—Westerly into Dauphin County; thence northerly, re-entering Schuylkill County, to Mahantango Creek.

Mouth—At Klingerstown; elevation 512.

Length—Twenty and one-half miles.

Drainage Area—Contains 77.4 square miles in western Schuylkill and northeastern Dauphin counties.

Topography—Rough and hilly, basin lying between parallel mountain ranges.

Channel—Tortuous, through shale and sandstone formations, containing deposits of anthracite.

Profile—Rate of fall per mile: from source to elevation 800, 2.5 miles, 180 feet; thence to mouth, 18 miles, 16 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Hegins (400), Valley View (580), Sacramento (202), Klingerstown (204).

Industries—Coal mines; agriculture.

Pollution—Waste from coal mines.

Utilization—Water power for small mills.

PINE CREEK, WEST BRANCH

Tributary to Pine Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—Formed by junction of North and South branches, in West Branch Township, eastern Potter County.

Course—Northeasterly to Pine Creek.

Mouth—At Galeton.

Length—Five and one-half miles.

Drainage Area—Contains 67.9 square miles in eastern Potter County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Corbett (54), West Branch (43), Galeton (4,027).

Industries—Timber; tanning; chemical works; agriculture.

Railroads—Buffalo & Susquehanna traverses basin and follows stream from source to mouth.

Utilization—Domestic and industrial supply at Galeton.

PINE CREEK, WEST BRANCH, SOUTH BRANCH

Tributary to West Branch Pine Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Summit Township, central Potter County.

Course—Southeasterly, by a circuitous route, to West Branch Pine Creek.

Mouth—Two miles southwest of West Branch.

Length—Nine miles.

Drainage Area—Contains 27.5 square miles in eastern central Potter County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Corbett (54).

Industries—Timber; agriculture.

Railroads—Buffalo & Susquehanna traverses basin and follows stream in lower course.

PINE (LITTLE) CREEK

Tributary to Pine Creek.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Blockhouse Run and Texas Run, in Pine Township, northwestern Lycoming County.

Course—Southwesterly to Pine Creek.

Mouth—At Waterville.

Length—Fifteen and one-half miles.

Drainage Area—Contains 171.9 square miles in southern Tioga and northwestern Lycoming counties.

Topography—Basin lies in Allegheny Plateau region, headwaters being in glaciated area; valleys are narrow with steep, well wooded slopes.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Liberty (253), Nauvoo (216), Buttonwood (107), English Center (198), Waterville (183).

Industries—Timber; agriculture.

Utilization—Industrial supply at English Center.

PINE RUN

Tributary to Mahoning Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Perry Township, southwestern Jefferson County; elevation 1,640.

Course—Westerly into Armstrong County to Mahoning Creek.

Mouth—At Eddyville; elevation 975.

Length—Eleven miles.

Drainage Area—Contains 32.4 square miles in southwestern Jefferson and northeastern Armstrong counties.

Topography—Broken and hilly; main valley has bottom lands 0.5 mile wide in upper basin and is flanked with steep hills, 300 to 400 feet high, for most of its length, becoming narrow in lower course.

Channel—Sinuous, through shale and sandstone formations, containing some limestone and coal.

Profile—Rate of fall per mile: from elevations 1,400 to 1,200, 7 miles, 28.6 feet; thence to mouth, 3.5 miles, 64.3 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Timblin (116), Pierce (101), Eddyville (110).

Industries—Coal; agriculture.

Railroads—Pittsburgh, Shawmut & Northern traverses basin and follows stream in middle course.

Utilization—Water power for small mill.

PINE RUN

Tributary to Pohopoco Creek. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Penn Forest Township, eastern Carbon County, 1 mile south of Christman.

Course—Southerly to Pohopoco Creek.

Mouth—One mile northwest of Stembersville.

Length—Five and one-half miles.

Drainage Area—Contains 12.3 square miles in eastern Carbon County.

Topography—Mountainous in headwaters; narrow valley flanked with steep hills, widening in lower basin.

Channel—Sinuous, through sandstone formation.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

Utilization—Water supply, in conjunction with Long Run, a tributary of Lehigh River, at Lehighton and Weissport.

PINEY CREEK

Tributary to Frankstown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Huston Township, southeastern Blair County; elevation 1,370.

Course—Northeasterly to Frankstown Branch Juniata River.

Mouth—At Ganister; elevation 858.

Length—Twelve miles.

Drainage Area—Contains 25.9 square miles in southeastern Blair County.

Topography—Broad fertile valley, flanked by Lock Mountain on west.

Channel—Sinuous, through limestone formation.

Profile—Rate of fall, from source to mouth, 42.7 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Mines (211), Royer (110), Ganister (92).

Industries—Agriculture.

Railroads—Pennsylvania traverses basin and follows stream in lower course.

Utilization—Water power for a small grist mill at Royer.

PINEY CREEK

Tributary to Clarion River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Limestone Township, eastern Clarion County.

Course—Westerly to Clarion River.

Mouth—At Piney; elevation 997.

Length—Twenty and one-half miles.

Drainage Area—Contains 69.8 square miles in eastern central Clarion County.

Topography—Broken and hilly; narrow valley flanked with rolling hills, becoming steep in lower course.

Channel—Sinuous, through shale and sandstone formations, containing coal, gas and some limestone.

Profile—Rate of fall per mile: from Kingsville, elevation 1,380, to elevation 1,100, 15 miles, 18.7 feet; thence to mouth, 2.5 miles, 41.2 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Kingsville (100), Frogtown (71), Limestone (313), Reidsburg (50), Strattonville (376), Piney (30).

Industries—Quarries; coal; gas; agriculture.

Railroads—Lake Shore & Michigan Southern follows stream from source to near mouth.

Utilization—Water power for a small mill at Limestone.

PITHOLE CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Allegheny Township, northeastern Venango County.

Course—Southwesterly to Allegheny River.

Mouth—Five miles northeast of Oil City.

Length—Fifteen and one-half miles.

Drainage Area—Contains 42.5 square miles in northwestern Forest and northeastern Venango counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations, containing rich oil deposits.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Pleasantville (702).

Industries—Agriculture; oil fields; timber.

PLEASANT STREAM

Tributary to Lycoming Creek.
Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Fox Township, northwestern Sullivan County.

Course—Southwesterly into Lycoming County to Lycoming Creek.

Mouth—At Marsh Hill.

Length—Fourteen miles.

Drainage Area—Contains 41.6 square miles in northwestern Sullivan and northeastern Lycoming counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Ellenton (95), Marsh Hill (53).

Industries—Timber; agriculture.

Railroads—Susquehanna & New York traverses basin and follows stream from headwaters to mouth; Susquehanna & Eagles Mere traverses upper basin.

Utilization—A small tributary for Susquehanna & New York Railroad water supply at Short Run.

PLUM CREEK

Tributary to Crooked Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—Formed by junction of North and South branches, in Plumcreek Township, southeastern Armstrong County; elevation 1,002.

Course—Southwesterly to Crooked Creek.

Mouth—Two miles southeast of Elderton, near Armstrong-Indiana county boundary; elevation 975.

Length—Five miles.

Drainage Area—Contains 80.0 square miles in southeastern Armstrong and northwestern Indiana counties.

Topography—Hilly; main valley has wide alluvial flood plains bordered with steep hills.

Channel—Sinuous, through shale, sandstone and limestone formations, containing coal and gas, and through wide flats of clay, gravel and boulders.

Profile—Rate of fall, from source to mouth, 5.4 feet per mile.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Plumville (414), Atwood (191), Gastown (90), Elderton (285).

Industries—Gas; coal; agriculture.

Railroads—Buffalo & Susquehanna traverses upper basin.

Utilization—Domestic and industrial supply at Sagamore. Water power for small mill at Elderton.

PLUM CREEK (or ROARING SPRING RUN)

Tributary to Frankstown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—Near Martinsburg, North Woodbury Township, Blair County; elevation 1,370.

Course—Northwesterly to Frankstown Branch Juniata River.

Mouth—At Stanfield; elevation 985.

Length—Nine miles.

Drainage Area—Contains 37.8 square miles in southeastern Blair and northern Bedford counties.

Topography—Mountainous in headwaters; broad, fertile main basin; stream cuts through mountain at McKee Gap.

Channel—Sinuous, through shale, sandstone and limestone formations; in a gorge between Dunning and Short mountains.

Profile—Rate of fall per mile: from source to elevation 1,300, 3.5 miles, 20 feet; thence to mouth, 5.5 miles, 57.3 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Martinsburg (920), East Sharpsburg (65), Roaring Spring (1,903), McKee Gap (164).

Industries—Agriculture; flour mills; planing mills; paper mills.

Railroads—Pennsylvania traverses basin.

Utilization—Water supply at Martinsburg. Halter Creek for water supply at Roaring Spring. Water power by a few small grist mills.

PLUM CREEK, SOUTH BRANCH

Tributary to Plum Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In East Mahoning Township, northern Indiana County; elevation 1,360.

Course—Southwesterly into Armstrong County to Plum Creek.

Mouth—One mile northeast of Gastown; elevation 1,002.

Length—Fifteen and one-half miles.

Drainage Area—Contains 39.9 square miles in western Indiana and eastern Armstrong counties.

Topography—Hilly; main valley has wide flats flanked with rolling hills in upper basin and becoming steep in lower basin.

Channel—Sinuous, through alluvial flood plains; beds of clay, gravel and boulders.

Profile—Rate of fall per mile: from source to elevation 1,100, 4.5 miles, 57.8 feet; thence to mouth, 11 miles, 8.9 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Ambrose (54), Willet (67).

Industries—Gas; coal; agriculture.

POCONO CREEK

Tributary to McMichaels Creek. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Pocono Mountains, Pocono Township, central Monroe County.

Course—Southeasterly to McMichaels Creek.

Mouth—At Stroudsburg; elevation 395.

Length—Fourteen miles.

Drainage Area—Contains 42.1 square miles in central Monroe County.

Topography—Broken, mountainous country within glaciated area; well wooded.

Channel—Sinuous, through shale and sandstone formations; rocky bed with steep banks.

HYDROGRAPHIC FEATURES

Gaging Station—Established near Stroudsburg, August 1911.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Scotrun (66), Tannersville (520), Bartonsville (279), Stroudsburg (4,379).

Industries—Silk and woolen mills; tanneries; powder plant; foundry; car shops; summer resorts.

Railroads—Wilkes-Barre & Eastern traverses basin and follows stream in lower course.

Utilization—Water power by a few grist mills. Big Meadow Creek for ice harvesting near Stroudsburg. Flagler Run for water supply at Stroudsburg.

POHOPOCO CREEK (or BIG CREEK)

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Chestnut Hill Township, southwestern Monroe County.

Course—Southwesterly into Carbon County to Lehigh River.

Mouth—At Parryville.

Length—Twenty-three miles.

Drainage Area—Contains 105.5 square miles in southwestern Monroe and southeastern Carbon counties.

Topography—Broad, agricultural valley flanked with steep mountain spurs and ridges.

Channel—Sinuous, through sandstone formations.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Effort (250), Gilbert (230), Kresgeville (227), Hatchery (86), Stembersville (116), Harrity (65), Parryville (590).

Industries—Agriculture.

Utilization—Main stream for industrial supply at Parryville. Water power for small mills at Parryville and Gilbert. Pine Run, and Long Run, a tributary of Lehigh River, for water supply at Lehighton and Weissport.

POTATO CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—Formed by junction of East and West branches, in Norwich Township, southeastern McKean County.

Course—Northerly to Allegheny River.

Mouth—One mile south of Larabee.

Length—Nineteen miles.

Drainage Area—Contains 239.8 square miles in southeastern McKean County.

Topography—Upper basin is a plateau, dissected with narrow valleys; lower basin has widening valleys, becoming broad flatland at mouth. There is a large virgin forest at the headwaters.

Geology—Shale and sandstone formations, containing coal.

Channel—Sinuous in upper basin; tortuous in lower basin.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Colegrove (125), Smethport (1,817), East Smethport (263), Mt. Jewett (1,771), Farmers Valley (110), Coleville (104), Coryville (197).

Industries—Timber; coal mines; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream from junction of Red Mill Brook to mouth; Pittsburgh, Shawmut & Northern traverses basin and follows stream from Smethport to mouth; Mount Jewett, Kinzua & Riterville traverses basin.

Utilization—Main stream for Pennsylvania Railroad water supply at Colegrove. Tributaries for water supply at Mt. Jewett and Smethport.

POTATO CREEK, EAST BRANCH

Tributary to Potato Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—Formed by junction of Railroad Branch and Right Hand Branch, in Norwich Township, southeastern McKean County.

Course—Westerly to join West Branch and form Potato Creek.

Mouth—One-half mile south of Norwich.

Length—Five and one-half miles.

Drainage Area—Contains 28.0 square miles in southeastern McKean County.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

POTOMAC BASIN

NATURAL FEATURES

Drainage Area—Area in Pennsylvania tributary to Potomac River embraces portions of Somerset, Bedford, Fulton, Franklin, Cumberland and Adams counties, containing 1,570 square miles, or 3.5 per cent of total area of state. The divide is very irregular and forms a loop in Franklin County reaching a point 35 miles north of the Mason-Dixon Line. The average distance above the state boundary is about 17 miles. The ridges and slopes of mountains in western part are densely wooded.

Topography—The western half of basin lies in Allegheny Mountains, the Allegheny escarpment being the western watershed. This mountain system traverses the basin in a series of parallel ridges running northeasterly to southwesterly. The eastern half of basin lies in Piedmont Plateau. The Blue Ridge Mountains terminate in South Mountain, which traverses the basin in western Adams County. Between South Mountain and the Allegheny Ranges lies the broad, fertile Cumberland Valley. The streams flow southerly and many of them in the western part of basin lie in valleys between the ridges.

Geology—The extreme folding of the strata and subsequent erosion have exposed the rocks in a series of parallel outcrops, sandstones and shales prevailing in the higher areas, while the limestones are generally found in the valleys. The Cumberland Valley is principally a limestone formation, abounding in springs, while South Mountain and the plateau region to the east are of sandstone, shale and trap formations.

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Hyndman (1,164), McConnellsburg (579), Mercersburg (1,410), Chambersburg (11,800), Greencastle (1,919), Mont Alto (658), Fayetteville (700), Waynesboro (7,199), Gettysburg (4,030), Littlestown (1,347).

Industries—Timber and some bituminous coal are found in the western part. The eastern part contains fertile and extensively developed agricultural lands, especially in the Cumberland Valley which also has rich limestone quarries and numerous springs. There are several manufacturing plants at Chambersburg, Waynesboro and Gettysburg.

Railroads—Cumberland Valley, Western Maryland, Philadelphia & Reading, Pennsylvania and Baltimore & Ohio traverse basin.

Utilization—Streams used for water supply at Hyndman, Cumberland, Md., McConnellsburg, Chambersburg, Fayetteville, Mercersburg, Mont Alto, Waynesboro and Gettysburg. Many springs in the Cumberland Valley and South Mountain are used for private water supplies and for hotels and sanitariums. Numerous small water power developments.

POWELL CREEK

Tributary to Susquehanna River.

Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—Formed by junction of North Fork and South Fork, in Jefferson Township, central Dauphin County; elevation 642.

Course—Southwesterly to Susquehanna River.

Mouth—At Inglenook; elevation 339.

Length—Fourteen miles.

Drainage Area—Contains 39.2 square miles in central Dauphin County.

Topography—Rough and hilly, basin lying between parallel ridges; narrow valley flanked with steep, high hills.

Channel—Tortuous, through shale and sandstone formations.

Profile—Rate of fall, from source to mouth, 21.6 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Carsonville (58), Enterline (115), Waynesville (27), Powls Valley (213), Inglenook (16).

Industries—Agriculture.

PRINCESS CREEK

Tributary to Aquashicola Creek. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Ross Township, southern Monroe County.

Course—Southwesterly into Carbon County to Aquashicola Creek.

Mouth—Near Little Gap.

Length—Twelve miles.

Drainage Area—Contains 44.3 square miles in southeastern Carbon and southern Monroe counties.

Topography—Mountainous; main stream flows at foot of steep ridge to south, with gently sloping country to north, drained by several small streams.

Channel—Sinuous, through sandstone and limestone formations.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Rossland (57). Kunkletown (500), Little Gap (374).

Industries—Agriculture.

Railroads—Chestnut Ridge follows stream from Kunkletown to mouth.

Utilization—Water supply at Saylorsburg.

PUCKETA CREEK

Tributary to Allegheny River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—On Franklin-Washington township boundary, northwestern Westmoreland County; elevation 1,200.

Course—Northwesterly to Allegheny River, forming Allegheny-Westmoreland county boundary for last 4 miles.

Mouth—At Parnassus; elevation 731.5.

Length—Ten and one-half miles.

Drainage Area—Contains 36.2 square miles in eastern Allegheny and northwestern Westmoreland counties.

Topography—Broken and hilly; main valley flanked with gently sloping hills, having alluvial flats near mouth.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from source to elevation 900, 4 miles, 75 feet; thence to mouth, 6.5 miles, 25.9 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Parnassus (2,578).

Industries—Agriculture.

PYMATUNING CREEK

Tributary to Shenango River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Ashtabula County, Ohio, 4 miles northwest of Andover; elevation 1,100.

Course—Southeasterly, crossing state boundary at elevation 891, into Mercer County to Shenango River.

Mouth—Two miles northeast of Sharpsville; elevation 870.

Length—In Pa., 6 miles.

Drainage Area—Total, 176.4 square miles; in Pa., 25.2 square miles in western Mercer County.

Topography—Flat, rolling hills.

Channel—Tortuous, through swamps and glacial drift.

Profile—Rate of fall, from state boundary to mouth, 3.5 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established below Orangeville, January 1914.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

Railroads—Erie follows stream from state boundary to mouth.

QUAKAKE CREEK

Tributary to Black Creek. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Kline Township, northeastern Schuylkill County; elevation 1,650.

Course—Northeasterly into Carbon County to Black Creek.

Mouth—Near Weatherly; elevation 1,010.

Length—Eleven miles.

Drainage Area—Contains 25.3 square miles in northeastern Schuylkill and western Carbon counties.

Topography—Broken, mountainous country; main valley contains broad, rolling lands flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing deposists of anthracite at headwaters.

Profile—Rate of fall per mile: from source to elevation 1,400, 1.5 miles, 166.7 feet; thence to mouth, 9.5 miles, 41.1 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Hudsondale (60).

Industries—Coal mines; agriculture; silk mill; railroad shops.

Railroads—Lehigh Valley follows stream from headwaters to mouth.

Utilization—Main stream and tributaries for water supply at Hudsondale.

QUEENS RUN

Tributary to West Branch Susquehanna River.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Gallagher Township, eastern Clinton County.

Course—Southwesterly to West Branch Susquehanna River.

Mouth—At Queens Run.

Length—Five miles.

Drainage Area—Contains 15.2 square miles in eastern Clinton County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture; timber.

Utilization—Main stream and 3 small tributaries for water supply by West End Water Co. at Mill Hall, Flemington and Lockport.

QUEMAHONING CREEK

Tributary to Stony Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Somerset Township, western central Somerset County.

Course—Northeasterly to Stony Creek.

Mouth—At Hollsopple.

Length—Eighteen miles.

Drainage Area—Contains 98.8 square miles in northwestern Somerset County.

Topography—Rough and mountainous; main valley flanked with steep hills, except in a few places where it widens and is bordered by gentle slopes; swamps in the valley of Roaring Run.

Channel—Sinuous, through shale and sandstone formations.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Stanton's Mill, October 1901; discontinued June 1910.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Acosta (175), Jennerstown (109), Boswell (1,878), Hollsopple (600).

Industries—Coal mines; timber; agriculture.

Railroads—Baltimore & Ohio traverses basin and follows stream in middle course.

Utilization—Large storage reservoir, capacity 13,000,000,000 gallons, supplying 60,000,000 gallons per day to Cambria Steel Co. Water power by a few small grist mills.

QUEMAHONING CREEK, NORTH BRANCH

Tributary to Quemahoning Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Lincoln Township, northwestern Somerset County.

Course—Northeasterly to Quemahoning Creek.

Mouth—Two miles southwest of Boswell.

Length—Seven miles.

Drainage Area—Contains 24.6 square miles in northwestern Somerset County.

Topography—Mountainous, principally in northwestern portion of basin, being slope of Laurel Ridge; eastern portion of basin broken and hilly; main valley wide in lower basin.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Coal mines; timber; agriculture.

QUITTAPAHILLA CREEK

Tribubary to Swatara Creek.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In North Lebanon Township, central Lebanon County; elevation 580.

Course—Westerly through Lebanon and Annville to Swatara Creek.

Mouth—One-half mile east of Lebanon-Dauphin county boundary, 3 miles north of Palmyra; elevation 350.

Length—Seventeen and one-half miles.

Drainage Area—Contains 77.8 square miles in southern central Lebanon County.

Topography—Lies in the broad fertile Lebanon Valley; main valley is narrow and flanked with steep hills for a 4-mile stretch in lower basin.

Channel—Sinuous, through limestone, shale and slate formations; broad flats in upper basin; in lower 5 miles banks become steep; widens near mouth.

Profile—Rate of fall per mile: from source to elevation 500, 1.5 miles, 53.3 feet; thence to mouth, 16 miles, 9.4 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Lebanon (19,240), Bismarck (575), Annville (1,750).

Industries—Extensive agriculture; large blast furnaces and steel mills at Lebanon; limestone quarries.

Railroads—Philadelphia & Reading traverses basin and follows stream from headwaters to junction of Killinger Creek; Cornwall and Cornwall & Lebanon traverse basin.

Utilization—Industrial and Philadelphia & Reading railroad supply at Lebanon. Main stream and Brandywine Creek for water supply by Lebanon Water Co. Water power for a few small mills.

RACCOON CREEK

Tributary to Ohio River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Mount Pleasant Township, northern Washington County; elevation 1,230.

Course—Northerly into Beaver County to Ohio River.

Mouth—Opposite Merrill; elevation 662.6.

Length—Forty-five miles.

Drainage Area—Contains 183.9 square miles, embracing portions of Washington, Allegheny and Beaver counties.

Topography—Broken and hilly; main valley hemmed in by steep hills, 300 to 400 feet high, and having broad flats along stream.

Channel—Tortuous, through clay and sandstone formations, containing oil and gas; banks bordered with broad flats between the steep hills; last 8.5 miles in a sandstone gorge.

Profile—Rate of fall, from elevation 1,100 to mouth, 43.5 miles, 10.1 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Moffatt's Mill, May 1915.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Burgettstown (1,268), Murdocksville (150).

Industries—Coal mines; oil; gas; agriculture.

Railroads—Pittsburgh, Cincinnati, Chicago & St. Louis traverses basin.

Utilization—Main stream for industrial supply at Cherry Valley and Hickton. Main stream and St. Patrick Run, a tributary of Little Raccoon Creek, for water supply at McDonald. Burgetts Fork for water supply for American Zinc & Chemical Co. near Burgettstown.

RAPID RUN

Tributary to Buffalo Creek.

Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Miles Township, eastern Center County.

Course—Southeasterly into Union County to Buffalo Creek.

Mouth—At Cowan.

Length—Thirteen miles.

Drainage Area—Contains 25.2 square miles in eastern Center and western Union counties.

Topography—Mountainous; narrow valley flanked with steep, high ridges; well wooded.

Channel—Sinuous, through sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Foresthill (100), Cowan (150).

Industries—Agriculture.

RATTLING CREEK

Tributary to Wiconisco Creek.

Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—Formed by junction of East Branch and West Branch in Jackson Township, northeastern Dauphin County; elevation 805.

Course—Northwesterly to Wiconisco Creek.

Mouth—At Lykens; elevation 595.

Length—Two miles.

Drainage Area—Contains 19.6 square miles in northeastern Dauphin County.

Topography—Mountainous; narrow valleys flanked with steep, high hills.

Channel—Sinuous, through shale and sandstone formations; in a gorge through Berry Mountain.

Profile—Rate of fall, from source to mouth, 105 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Lykens (2,943).

Industries—Coal mines; hosiery mills; foundry; paper box factory.

Utilization—East Branch and its tributary, Nine O'clock Branch, for water supply at Williamstown; also used, in conjunction with main stream, at Lykens and Wiconisco.

RAYSTOWN BRANCH

Tributary to Juniata River. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—Formed by junction of Deeters Run and Spicer Brook, in Juniata Township, Bedford County; elevation 1,178.

Course—Easterly to Rays Hill; thence northeasterly into Huntingdon County to Juniata River.

Mouth—Near Ardenheim.

Length—One hundred and eight miles.

Drainage Area—Contains 1,012.1 square miles, embracing portions of Somerset, Cambria, Blair, Fulton, Bedford and Huntingdon counties.

Topography—Basin lies within Allegheny Mountain region; stream cuts through several ridges on its eastward course; narrow main valley flanked with high, steep hills; well wooded.

Geology—Shale, sandstone and limestone formations; famous mineral springs are located in vicinity of Bedford; some coal and iron ore.

Channel—Tortuous, through rough and rocky gorges in many stretches; bordered with narrow alluvial flood plains in places.

Profile—Rate of fall per mile: from source to elevation 700, 82 miles, 5.8 feet; thence to elevation 640, 18 miles, 3.3 feet.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Saxton, August 1911.

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Manns Choice (341), Schellburg (314), Bedford (2,235), Everett (1,725), Hopewell (590), Riddlesburg (245), Coaldale (311), Saxton (1,195), Dudley (440), Broadtop (478), Marklesburg (211).

Raystown Branch Juniata River near Mouth

Google

Industries—Agriculture; railroad shops; brick works; planing mill; quarries; blast furnaces; coal mines; summer resorts.

Railroads—Pennsylvania traverses basin and follows stream from Manns Choice to Everett; Huntingdon & Broad Top Mountain traverses basin and follows stream in middle course; East Broad Top & Coal Co. traverses basin.

Utilization—Main stream and tributaries for domestic and industrial supply at several places, including Saxton, Riddlesburg and Bedford. Hydroelectric plant at Hawns Bridge. Small grist mills at various places.

REDBANK CREEK

Tributary to Allegheny River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—Formed by junction of North Fork and Sandy Lick Creek at Brookville, Jefferson County.

Course—Southwesterly to Allegheny River, forming Clarion-Armstrong county boundary for last 30 miles.

Mouth—At Redbank; elevation 807.

Length—Forty-seven and one-half miles.

Drainage Area—Contains 585.5 square miles, embracing portions of Elk, Clearfield, Jefferson, Clarion and Armstrong counties.

Topography—Broken and hilly country lying in the Allegheny Plateau. In upper basin there is considerable flatland; in lower basin stream is in a narrow, steep-sided valley. One-third of area is wooded.

Geology—Shale, sandstone and limestone formations, containing coal deposits.

Channel—Tortuous; rough bed; steep rocky banks.

Profile—Rate of fall, from Mayport, elevation 1,080, to mouth, 28 miles, 9.8 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established at St. Charles, October 1909.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Du Bois (12,623), Falls Creek (1,204), Reynoldsville (3,189), West Reynoldsville (933), Brookville (3,003), Summerville (609), Fairmount City (626), New Bethlehem (1,625).

Industries—Coal mines; quarries; brick works; glass works; railroad shops; tanneries; timber; oil; gas; agriculture.

Pollution—Waste from coal mines and tanneries.

Railroads—Pennsylvania traverses basin and follows stream from source to mouth; Pittsburgh, Shawmut & Northern and Lake Shore & Michigan Southern traverse basin; Buffalo & Susquehanna and Buffalo, Rochester & Pittsburgh traverse upper basin.

Utilization—Water supply at New Bethlehem. Tributaries for water supply at Falls Creek, Reynoldsville and Brookville. Water power by a few small grist mills.

REDBANK CREEK, NORTH FORK

Tributary to Redbank Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Polk Township, northern Jefferson County.

Course—Southwesterly, by a circuitous route, to join Sandy Lick Creek and form Redbank Creek.

Mouth—At Brookville.

Length—Twenty and one-half miles.

Drainage Area—Contains 97.2 square miles in northern Jefferson County.

Topography—Broken and hilly.

Channel—Sinuous, through shale and sandstone formations, containing coal and some limestone.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Munderf (42), Pueblo (40), Richardsville (110), Warsaw (140), Howe (75), Brookville (3,003).

Industries—Gas; coal; agriculture.

Utilization—Water supply at Brookville.

RED CLAY CREEK (INCLUDING EAST BRANCH AND WEST BRANCH)

Tributary to White Clay Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—East Branch rises southeast of Unionville, East Marlboro Township, Chester County; elevation 435. West Branch rises near Leonard, East Marlboro Township, Chester County; elevation 500. Main stream formed by junction of East and West branches in Kennett Township, Chester County; elevation 190.

Course—East Branch, southerly to Red Clay Creek. West Branch, southeasterly to Red Clay Creek. Main stream, southeasterly into State of Delaware to White Clay Creek.

Mouth—Near Newport, Del.

Length—East Branch, 7 miles; West Branch, 9.5 miles; main stream, in Pa., 0.5 mile.

Drainage Area—In Pa., 34.1 square miles in southern Chester County.

Topography—Rolling agricultural country, broken and hilly in places.

Channel—Sinuous, through sandstone, some limestone and trap formations.

Profile—Rate of fall per mile: East Branch, from source to mouth, 35 feet; West Branch, from source to mouth, 32.6 feet; main stream, from source to state boundary, elevation 181, 18 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Unionville (516), Kennett Square (2,049), Toughkenamon (400).

Industries—Agriculture.

Railroads—Philadelphia, Baltimore & Washington traverses basin.

Utilization—Small tributary for water supply at Kennett Square. Water power for many small mills.

REDSTONE CREEK

Tributary to Monongahela River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—On western slope of Chestnut Ridge, in South Union Township, southern central Fayette County; elevation 1,280.

Course—Northwesterly to Monongahela River.

Mouth—One mile north of Brownsville; elevation 735.

Length—Twenty-six miles.

Drainage Area—Contains 108.8 square miles in western Fayette County.

Topography—Mountainous at headwaters and hilly in middle and lower basin; main valley varies in width and is flanked with steep hills in lower basin.

Channel—Tortuous, through clay and sandstone; gently sloping banks in upper course, becoming steep in lower course.

Profile—Rate of fall per mile: from elevations 1,100 to 1,000, 2.5 miles, 40 feet; thence to mouth, 23 miles, 11.5 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Brownfield (1,460), Hopwood (743), Uniontown (13,344), Percy (750), Lemont Furnace (1,000), Oliver (1,800).

Industries—Numerous coal mines and coke ovens; enamel works, radiator plant, brake shoe and foundry company, etc., at Uniontown; oil; gas; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream from source to mouth; Baltimore & Ohio traverses basin and follows stream in upper course.

Utilization—Tributaries for industrial and domestic supply at Uniontown and vicinity, including following streams: Crabapple Run, Benningtons Spring Run, Shutes Run, Cool Spring Run, Allen Run, Colvin Run, Fans Run and Washwater Run.

RIDLEY CREEK

Tributary to Delaware River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—Near Frazer, East Whiteland Township, Chester County; elevation 540.

Course—Southeasterly into Delaware County to Delaware River.

Mouth—At Chester; tidewater.

Length—Twenty-one miles.

Drainage Area—Contains 38.2 square miles in southeastern Chester and central Delaware counties.

Topography—Broken and hilly country of Piedmont Plateau; narrow valley flanked with steep hills.

Channel—Sinuous, through gneiss formation; in a deep, narrow valley for most of its course.

Profile—Rate of fall per mile: from source to elevation 200, 9 miles, 37.8 feet; thence to elevation 20, 9.5 miles, 18.9 feet; thence 2.5 miles to mouth.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Media (3,562), Eddystone (1,167), Chester (38,537).

Industries—Manufacturing and commercial towns, with considerable shipping trade; Baldwin Locomotive Works; Eddystone print works.

Railroads—Philadelphia, Baltimore & Washington and Baltimore & Ohio traverse basin.

Utilization—Water supply at Media; private water supply by Thomas G. Ashton. Water power by small mills.

RIGGLES GAP RUN

Tributary to Little Juniata River. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Antis Township, northwestern Blair County.

Course—Southeasterly to Little Juniata River.

Mouth—Two miles southwest of Bellwood.

Length—Six miles.

Drainage Area—Contains 11.3 square miles in northwestern Blair County.

Topography—Mountainous; narrow valley flanked with steep, high hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

Utilization—Main stream, in conjunction with other streams, for water supply at Altoona.

ROARING BRANCH

Tributary to Lycoming Creek.
Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Liberty Township, southeastern Tioga County.

Course—Southwesterly into Lycoming County; thence easterly to Lycoming Creek, being Tioga-Lycoming county boundary for last 2 miles.

Mouth—At Roaring Branch.

Length—Fifteen and one-half miles.

Drainage Area—Contains 41.6 square miles in southeastern Tioga and northern Lycoming counties.

Topography—Rough and hilly; narrow valleys flanked with high, steep, well wooded hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Liberty (253), Eastpoint (40), Roaring Branch (400).

Industries—Timber; agriculture.

ROARING BROOK

Tributary to Lackawanna River.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Covington Township, southeastern Lackawanna County.

Course—Northwesterly to Lackawanna River.

Mouth—At Scranton; elevation 658.

Length—Nineteen miles.

Drainage Area—Contains 57.9 square miles in southeastern Lackawanna County.

Topography—Upper basin is rolling agricultural country; becomes mountainous in lower course; narrow valley flanked with steep, high hills between Elmhurst and Dunmore.

Channel—Sinuous, through shale, sandstone and conglomerate formations, containing coal deposits; restricted by railroad embankments for long stretches, and by retaining walls in lower course.

Profile—Rate of fall, from elevation 1,600 to mouth, 15 miles, 62.8 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Moscow (650), Elmhurst (379), Dunmore (17,615), Scranton (129,867).

Industries—Agriculture; brick works; coal mines.

Pollution—Waste from coal mines 5 miles above mouth.

Railroads—Delaware, Lackawanna & Western follows stream from headwaters to mouth; Erie traverses basin and follows stream from Elmhurst to mouth.

Utilization—Main stream for water supply by Scranton Gas & Water Co. at Scranton; industrial supply by Spencer Coal Co. La Touche Creek and Little Roaring Brook for water supply at Moscow and Dunmore respectively; Oak Run for water supply by Scranton Gas & Water Co.

ROARING CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Roaring Creek Township, southern Columbia County; elevation 1,660.

Course—Northwesterly to North Branch Susquehanna River, being Montour-Columbia county boundary for last 2 miles.

Mouth—At Roaring Creek Station; elevation 456.

Length—Eighteen miles.

Drainage Area—Contains 90.3 square miles, embracing portions of Columbia, Northumberland and Montour counties.

Topography—Mountainous in headwaters; main basin rough and hilly; wide main valley flanked with broken hills; narrow and gorge-like for last 3 miles.

Channel—Sinuous, through shale and sandstone formations; in a gorge for last 3 miles.

Profile—Rate of fall per mile: from elevations 1,100 to 700, 7 miles, 57.1 feet; thence to mouth, 9.5 miles, 25.7 feet.

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Roaring Creek (407), Bear Gap (124).

Industries—Agriculture.

Utilization—Water power for a small grist mill.

ROARING CREEK, SOUTH BRANCH

Tributary to Roaring Creek.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Conyngham Township, southern Columbia County; elevation 1,680.

Course—Westerly to Bear Gap; thence northerly to Roaring Creek, being Columbia-Northumberland county boundary for 10 miles.

Mouth—Two miles southeast of Roaring Creek Station; elevation 561.

Length—Nineteen miles.

Drainage Area—Contains 36.9 square miles, embracing portions of Columbia, Montour and Northumberland counties.

Topography—Mountainous; stream flows between Big Mountain and Little Mountain to Bear Gap, where it cuts through latter range and flows northerly in a narrow, steep-sided valley.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from source to elevation 1,200, 3 miles, 160 feet; thence to mouth, 16 miles, 39.9 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Bear Gap (124).

Industries—Agriculture.

Utilization—Main stream for water supply by Bear Gap Water Co. at Locustdale, Montana and Wilburton, and by Wyoming Valley Water Supply Co. for villages in Conyngham Township. Main stream and tributaries of Shamokin Creek by Roaring Creek Water Co. at Shamokin, Marion Heights, Kulpmont and Mt. Carmel.

ROARING SPRING RUN (or PLUM CREEK)

For description see Plum Creek.

ROBINSON RUN

Tributary to Chartiers Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Robinson Township, northern Washington County, near Midway; elevation 1,180.

Course—Southeasterly and northeasterly into Allegheny County to Chartiers Creek.

Mouth—Near Walkers Mills; elevation 770.

Length—Fifteen and one-half miles.

Drainage Area—Contains 40.1 square miles in northern Washington and western Allegheny counties.

Topography—Broken and hilly; main valley flanked with steep hills 300 to 400 feet high.

Channel—Straight in upper course, becoming sinuous in middle and lower courses; carved in clay and sandstone.

Profile—Rate of fall per mile: from source to elevation 1,000, 3.5 miles, 51.4 feet; thence to mouth, 12 miles, 19.2 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Midway (941), McDonald (2,543), Oakdale (1,353).

Industries—Extensive coal mining; oil wells; iron and steel works; agriculture.

Railroads—Pittsburgh, Cincinnati, Chicago & St. Louis follows stream from Midway to mouth.

ROCK CREEK

Tributary to Monocacy River. Basin: Potomac.

NATURAL FEATURES

Source—In Straban Township, central Adams County; elevation 590.

Course—Southerly, passing just east of Gettysburg, to join Marsh Creek and form Monocacy River.

Mouth—On state boundary, 8 miles south of Gettysburg; elevation 370.

Length—Eighteen and one-half miles.

Drainage Area—Total, 65.3 square miles; in Pa., 65.2 square miles in southern Adams County.

Topography—Gently rolling country in Piedmont Plateau.

Channel—Sinuous, through shale and sandstone formations; gently sloping banks, bordered with wide flats.

Profile—Rate of fall, from source to mouth, 11.9 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Gettysburg (4,030), Bonneauville (170). The Gettysburg Battlefield is in this basin, just south of Gettysburg.

Industries—Extensive agriculture; furniture and shirt factories; foundry and brick plant at Gettysburg.

Railroads—Philadelphia & Reading and Western Maryland traverse basin.

RUDDLE RUN

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Big Creek Mountain, Penn Forest Township, Carbon County.

Course—Southwesterly to Lehigh River.

Mouth—At East Mauch Chunk.

Length—Three and one-half miles.

Drainage Area—Contains 4.0 square miles in central Carbon County.

Topography—Mountainous; narrow valley flanked with steep hills; well wooded.

Channel—Sinuous, through rough sandstone bed, having steep banks.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—East Mauch Chunk (3,548).

Utilization—Domestic supply by Mauch Chunk Water Co. at East Mauch Chunk.

RUFF CREEK

Tributary to South Fork Tenmile Creek. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Morris Township, northern Greene County; elevation 1,380.

Course—Southeasterly to South Fork Tenmile Creek.

Mouth—Two miles south of Lippincott; elevation 890.

Length—Twelve and one-half miles.

Drainage Area—Contains 26.9 square miles in northern Greene County.

Topography—Hilly; main valley has broad flats in middle course, flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 1,100 to 1,000, 3.5 miles, 28.6 feet; thence to mouth, 8 miles, 13.8 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Ruffcreek (63), Lippincott (66).

Industries—Coal; oil; gas; agriculture.

SACONY CREEK

Tributary to Maiden Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—Near Henningsville, Longswamp Township, Berks County; elevation 1,000.

Course—Northwesterly to junction with Mill Creek; thence westerly to Maiden Creek.

Mouth—At Virginville; elevation 310.

Length—Sixteen miles.

Drainage Area—Contains 55.8 square miles in western Lehigh and northeastern Berks counties.

Topography—Upper basin is rolling agricultural country; below Kutztown, valley narrows and is flanked with steep hills.

Channel—Sinuous, through limestone formation in upper basin; enters slate formation just below Kutztown.

Profile—Rate of fall per mile: from source to elevation 500, 4 miles, 125 feet; thence to Kutztown, elevation 400, 4 miles, 25 feet; thence to mouth, 8 miles, 11.2 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Bowers (300), Lyon Station (472), Kutztown (2,360), Virginville (350).

Industries—Agriculture; foundry; machine shops; silk mill; shoe factory; knitting mills; creameries.

Railroads—Philadelphia & Reading traverses upper basin.

Utilization—Water power for several small grist mills.

SALMON CREEK

Tributary to Tionesta Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Jenks Township, eastern Forest County.

Course—Westerly, by a circuitous route, to Tionesta Creek.

Mouth—Two miles northeast of Newtown Mills.

Length—Eighteen and one-half miles.

Drainage Area—Contains 55.8 square miles in eastern central Forest County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Timber; gas; agriculture.

Railroads—Baltimore & Ohio traverses upper basin.

SALTLICK CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Jackson Township, northeastern Susquehanna County.

Course—Northwesterly, by a circuitous route, to North Branch Susquehanna River.

Mouth—At Hallstead.

Length—Fourteen miles.

Drainage Area—Contains 38.5 square miles in northeastern Susquehanna County.

Topography—Rugged, hilly country in the glaciated area, containing lakes and swamps; narrow main valley flanked with high hills.

Channel—Sinuous, through glacial drift and sandstone formations.

Lakes—Pages Pond (96.1 acres), East Lake (36.9 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—New Milford (654), Hallstead (1,538).

Industries—Agriculture; stone quarries.

Railroads—Delaware, Lackawanna & Western traverses basin and follows stream from New Milford to mouth.

Utilization—East Lake Creek for water supply at New Milford.

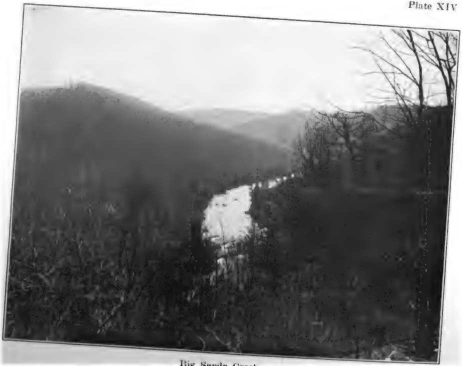
SANDY CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In East Fallowfield Township, southwestern Crawford County; elevation 1,330.

Plate XIV



Big Sandy Creek

Course—Southeasterly into Mercer County; thence northeasterly, re-entering Crawford County; thence southeasterly, through Mercer County, into Venango County to Allegheny River.

Mouth—Five miles south of Franklin; elevation 928.

Length—Thirty-eight miles.

Drainage Area—Contains 159.2 square miles, embracing portions of Crawford, Mercer and Venango counties.

Topography—Rolling hills and broad valleys; basin above Reeds Furnace lies within glaciated area which abounds in marshes, swamps, lakes and ponds, including Sandy Lake.

Channel—Sinuous, through swamps and marshes of glacial origin.

Profile—Rate of fall per mile: from source to elevation 1,200, 6.5 miles, 20 feet; thence to elevation 1,100, 21.5 miles, 4.7 feet; thence to mouth, 10 miles, 17.2 feet.

Lakes—Sandy Lake (149.7 acres).

HYDROGRAPHIC FEATURES

Gaging Station—Established at Sandy Lake Borough, May 1914.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sheakleyville (126), Stoneboro (1,074), Sandy Lake (639), Raymilton (105), Polk (2,066).

Industries—Agriculture; oil; gas; coal.

Pollution—Waste from coal mines and oil fields.

Railroads—Lake Shore & Michigan Southern traverses basin and follows stream from Sandy Lake to mouth; Pennsylvania traverses basin and follows stream in middle course.

Utilization—Water power by a few small grist mills.

SANDY (BIG) CREEK

Tributary to Cheat River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—At Summit, on Chestnut Ridge, Wharton Township, Fayette County; elevation 2,380.

Course—Southerly to Elliottsville; thence southwesterly into West Virginia to Cheat River.

Mouth—In West Virginia; elevation 917.

Length—In Pa., 12 miles.

Drainage Area—In Pa., 79.2 square miles in southern Fayette County.

Topography—Mountainous in headwaters; rolling hills in lower basin; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 2,000 to 1,700, 2.5 miles, 120 feet; thence to elevation 1,600, 2 miles, 50 feet; thence to state boundary, elevation 1,541, 7 miles, 8.4 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Elliottsville (64), Wirsing (87), Gibbon Glade (37).

Industries—Lumber; coal mines; agriculture.

Utilization—Water power by a few grist mills and sawmills.

SANDY (EAST) CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Washington Township, northern Clarion County.

Course—Westerly into Venango County; thence southwesterly, returning to Clarion County; thence westerly, re-entering Venango County, to Allegheny River.

Mouth—Five miles southeast of Franklin; elevation 943.

Length—Twenty-two and one-half miles.

Drainage Area—Contains 105.0 square miles in northwestern Clarion and southeastern Venango counties.

Topography—Broken and hilly; narrow valleys flanked with rolling hills.

Channel—Sinuous, through shale and sandstone formations, containing oil and gas.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Kossuth (95), Tenmile Bottom (263), Fertigs (88), East Sandy (75), Nickleville (100), Cranberry (142).

Industries—Agriculture; oil; gas.

Railroads—Lake Shore & Michigan Southern traverses basin and follows stream from Van to mouth.

SANDY (LITTLE) CREEK

Tributary to Redbank Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In McCalmont Township, southern central Jefferson County.

Course—Westerly into Armstrong County to Redbank Creek.

Mouth—Near Armstrong-Jefferson county boundary.

Length—Fifteen miles.

Drainage Area—Contains 78.1 square miles in southwestern Jefferson and northeastern Armstrong counties.

Topography—Broken and hilly.

Channel—Sinuous, through shale and sandstone formations, containing coal and some limestone.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Knox Dale (167), Coolspring (150), Worthville (121), Sprankle Mills (93), Pansy (117), Ringgold (150).

Industries—Coal; agriculture.

Railroads—Pittsburgh, Shawmut & Northern traverses basin.

Utilization—Indian Camp Run for water supply at Indian Camp. Water power for a few small mills.

SANDY (LITTLE) CREEK

Tributary to Big Sandy Creek. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Henry Clay Township, southeastern Fayette County.

Course—Southwesterly into West Virginia to Big Sandy Creek.

Mouth—One mile south of state boundary; elevation 1,525.

Length—In Pa., 10 miles.

Drainage Area—In Pa., 25.1 square miles in southeastern Fayette County.

Topography—Hilly, with some rolling country; valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 2,200 to 1,600, 6.5 miles, 92.3 feet; thence to state boundary, elevation 1,530, 2.5 miles, 28 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Gibbon Glade (37).

Industries—Timber; coal mines; agriculture.

SANDY (SOUTH) CREEK

Tributary to Sandy Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Sandy Lake Township, eastern Mercer County; elevation 1,580.

Course—Easterly, by a circuitous route, into Venango County; thence northeasterly to Sandy Creek.

Mouth—One and one-half miles southeast of Polk; elevation 1,005.

Length—Thirteen miles.

Drainage Area—Contains 32.2 square miles in eastern Mercer and western Venango counties.

Topography—Broken and hilly; valleys flanked with rolling agricultural lands.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from source to elevation 1,300, 3 miles, 93.3 feet; thence to mouth, 10 miles, 29.5 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Pearl (25), Henderson (99).

Industries—Agriculture.

SANDY RUN

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—Near Freeland, in Foster Township, Luzerne County; elevation 1,800.

Course—Easterly to Lehigh River.

Mouth—Four miles southeast of White Haven.

Length—Eight miles.

Drainage Area—Contains 25.1 square miles in southeastern Luzerne County.

Topography—Broken, mountainous country, containing lakes and swamps of glacial origin; terminal moraine traverses basin; well wooded.

Channel—Sinuous, through shale and sandstone formations, containing deposits of anthracite at headwaters.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Sandy Run (487), Zehner (155).

Industries—Coal mines; agriculture.

Railroads—Central Railroad of New Jersey and Lehigh Valley traverse basin.

SANDY LICK CREEK

Tributary to Redbank Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Sandy Township, northwestern Clearfield County.

Course—Southwesterly, by a circuitous route, into Jefferson County; thence southerly, re-entering Clearfield County; thence westerly, re-entering Jefferson County, to join North Fork Redbank Creek and form Redbank Creek.

Mouth—At Brookville.

Length—Thirty-six miles.

Drainage Area—Contains 235.5 square miles, embracing portions of Elk, Clearfield and Jefferson counties.

Topography—Broken and hilly.

Geology—Shale and sandstone formations, containing coal deposits and some limestone.

Channel—Sinuous, through rolling agricultural lands.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Du Bois (12,623), Falls Creek (1,204), Reynoldsville (3,189), West Reynoldsville (933), Brookville (3,003).

Industries—Coal mines; railroad shops; machine shops; tanneries; brick works; glass works; quarries; timber; agriculture.

Pollution—Waste from coal mines and tanneries.

Railroads—Pennsylvania traverses basin and follows stream from headwaters to mouth; Lake Shore & Michigan Southern traverses basin and follows stream from Du Bois to mouth; Buffalo, Rochester & Pittsburgh, Pittsburgh, Shawmut & Northern and Buffalo & Susquehanna traverse basin.

Utilization—Falls Creek for water supply at Falls Creek Borough; Pitch Pine Run at Reynoldsville. Water power by a few small grist mills.

SAUCON CREEK

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Lower Milford Township, southeastern Lehigh County; elevation 640.

Course—Northeasterly into Northampton County to Lehigh River.

Mouth—At Shimersville; elevation 206.

Length—Sixteen and one-half miles.

Drainage Area—Contains 58.2 square miles, embracing portions of Lehigh, Bucks and Northampton counties.

Topography—Rolling agricultural country lying southeast of Lehigh Mountain.

Channel—Sinuous, through limestone valley with shale and sandstone formations in hills.

Profile—Rate of fall per mile: from source to elevation 400, 4 miles, 60 feet; thence to mouth, 12.5 miles, 15.5 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Limeport (215), Coopersburg (683), Center Valley (527), Bingen (195), Hellertown (915).

Industries—Cigar factories; hosiery factories; iron works; bottling works; agriculture.

Railroads—Philadelphia & Reading traverses basin and follows stream in lower course.

Utilization—Water power for several small mills.

SAW CREEK (or MIDDLE BUSHKILL CREEK)

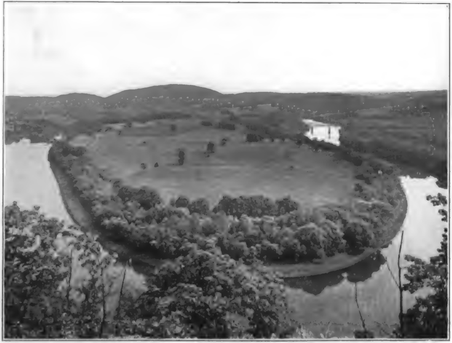
Tributary to Big Bushkill Creek. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Porter Township, southern Pike County.

Course—Southerly to Big Bushkill Creek.

Plate XV



Schuylkill River at Poplar Neck, below Reading

Mouth—On Pike-Monroe county boundary, 2 miles west of Bushkill.

Length—Fourteen and one-half miles.

Drainage Area—Contains 31.1 square miles in southern Pike County.

Topography—Broken, mountainous country containing lakes and swamps of glacial origin; well wooded. Main valley narrow and gorge-like in places.

Channel—Sinuous, through shale and sandstone formations and glacial drift; many cascades, including Winona Falls.

Lakes—Hunters Range Lake (190.0 acres), Saw Creek Club Pond (45.3 acres), Mud Pond (33.5 acres).

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture; ice harvesting; summer resorts.

SCHRADER RUN (or SHRADER BRANCH)

For description see Shrader Branch.

SCHUYLKILL RIVER

Tributary to Delaware River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Locust Mountain, near Tuscarora, Schuylkill County; elevation 1,160.

Course—Southeasterly, through Berks, between Chester and Montgomery, and through Montgomery and Philadelphia counties, to Delaware River.

Mouth—At League Island Navy Yard, below Philadelphia; tidewater.

Length—One hundred and thirty-one miles.

Drainage Area—Contains 1,915.8 square miles, embracing portions of Schuylkill, Carbon, Lehigh, Berks, Lebanon, Chester, Montgomery, Bucks, Delaware and Philadelphia counties.

Topography—Mountainous in Schuylkill County; at Hamburg the river enters Piedmont Plateau, passing through South Mountain in vicinity of Reading, below which lies a broad, rich, rolling agricultural country.

Geology—Headwaters in coal measures, which are separated by anticlinal waves of Pottsville conglomerate; thence river cuts through formations of shale and sandstone into Berks County, passing for about 10 miles through Hudson River shales and entering limestone section drained by Tulpehocken and Maiden creeks. Below Reading it meets a trap formation and then flows through red sandstone to below Norristown, where it flows again into a limestone district, from which it passes through schist formations and finally the gravel of Philadelphia County.

Channel—Sinuous, through rough, rocky valleys between steep mountain ridges, cutting through ridges in places, forming picturesque water gaps; below last gap at Port Clinton in Blue Mountain stream enters a more rolling country where wide bottom lands obtain, sometimes at foot of steep hills, the windings forming many necks, like the notable Poplar Neck below Reading. There is considerable slack-water formed by 31 dams, from 4 to 24 feet high, of the Schuylkill Navigation Co.

Profile—Rate of fall per mile: from Tuscarora, elevation 900, to Port Carbon, elevation 630, 10 miles, 27 feet; thence to Reading, elevation 200, 44 miles, 9.8 feet; thence to West Manayunk, elevation 20, 61 miles, 3.0 feet; thence 14.5 miles to mouth.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Schuylkill Haven, May 1914. At Reading, May 1914. At Conshohocken, June 1914. At Fairmount Dam, Philadelphia, January 1903.

Floods—(See Part VIII of the Inventory Report.)

Precipitation—Mean annual, 40 to 55 inches, the upper portion of basin receiving heaviest rainfall in the state.

NATURAL RESOURCES

Agriculture—The greater portion of the country outside of mountainous area is extensively developed agricultural land, the basins of Tulpehocken and Maiden creeks and the Chester Valley being most productive.

Minerals—The anthracite deposits in Schuylkill and Carbon counties are extensively developed, principally on account of their high quality and accessibility. Iron, lead, copper and graphite have been mined, but are now obtained from more abundant fields. Limestone, marble, sandstone, soapstone and gneissic rocks have been quarried on a liberal scale, while clay deposits are utilized for brick and ceramic products.

Timber—This resource was depleted extensively in the earlier days when charcoal was used in blast furnaces. Reforestation was carried on and the present partial woodland cover is due to this practice.

Water Power—The water power development was co-ordinate with the development of navigation, and at the present time many power sites continue to be used, although navigation has greatly diminished.

ARTIFICIAL FEATURES

Towns—St. Clair (6,455), Pottsville (20,236), Minersville (7,240), Tamaqua (9,462), Lansford (8,321), Coaldale (5,154), Schuylkill Haven (4,747), Reading (96,071), Birdsboro (2,930), Pottstown (15,599), Royersford (3,073), Spring City (2,880), Phoenixville (10,743), Conshohocken (7,480), Norristown (27,875), Philadelphia (1,549,008).

Industries—Coal mines; quarries; iron and steel works; textile factories; shipyards; locomotive works; paper mills; printing and publishing; railroading; agriculture.

Pollution—Waste from coal mines, paper mills, dye works and textile factories.

Railroads—Pennsylvania and Philadelphia & Reading follow stream from headwaters to mouth, and numerous branches of both systems traverse basin, following tributaries; Lehigh Valley traverses basin.

Utilization—Water supply by many towns and industries. Philadelphia obtains a portion of its supply from this stream. Other towns supplied include West Reading, Pottstown, Spring City, Royersford, Phoenixville and Norristown. Water power is developed at many points in conjunction with works of the Schuylkill Navigation Co., which operates the canal along this stream extending from the anthracite region to tidewater. There are 31 dams, from 4 to 24 feet high, and 71 locks, overcoming a total lift of 618 feet. The upper 14 miles is not used at present and traffic allotted to the canal is small. The channel is navigable for ocean-going vessels from mouth to Fairmount Dam in Philadelphia. The following tributaries are utilized: Antietam Creek by Reading Water Department; tributary of same for water supply at Mt. Penn. Bernhart Creek for water supply at Reading. Sixpenny Creek for ice and fishing by J. W. Slipp. Kleinginney Creek, a tributary of Wyomissing Creek, for water supply by Mohnsville Water Co. Silver Creek for water supply by Silver Creek Water Co. (P. & R. C. & I. Co.). Tumbling Run for water supply by Philadelphia & Reading Coal & Iron Co. Allegheny Creek for water power by hosiery mill. Angelica Creek for water power by C. G. Derr.

SCHUYLKILL RIVER, WEST BRANCH

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Broad Mountain, Foster Township, Schuylkill County; elevation 1,500.

Course—Easterly and southeasterly to Schuylkill River.

Mouth—Near Schuylkill Haven; elevation 515.

Length—Fifteen miles.

Drainage Area—Contains 53.4 square miles in central Schuylkill County.

Topography—Mountainous; main stream flows between two parallel ridges for first 5 miles; then cuts through Mine Hill into a relatively open country, and through Sharp and Second mountains in a deep, narrow valley in lower course.

Channel—Sinuous, through shale and sandstone formations, containing rich deposits of anthracite.

Profile—Rate of fall per mile: from Glen Carbon, elevation 1,200, to Minersville, elevation 700, 6.5 miles, 76.9 feet; thence to mouth, 7.5 miles, 24.7 feet.

Precipitation—Mean annual, 50 to 55 inches.

ARTIFICIAL FEATURES

Towns—Glen Carbon (94), Heckscherville (120), Minersville (7,240), Cressona (1,837).

Industries—Coal mines; railroad yards and shops.

Pollution—Waste from coal mines.

Railroads—Philadelphia & Reading follows stream from Glen Carbon to mouth; Lehigh Valley and Philadelphia & Reading traverse basin.

Utilization—Tributaries, including Dyers Run, Wagner Run, Weeler Run and Raccoon Creek, for water supply at Minersville; Butcher Creek for water supply at Newcastle; Indian Run for auxiliary water supply at Pottsville; Panther Creek, in conjunction with Hummels Run and Berkelbach Run, tributaries of Little Swatara Creek, for water supply at Schuylkill Haven and Cressona. Water power for a few small mills.

SCHUYLKILL RIVER, WEST-WEST BRANCH

Tributary to West Branch Schuylkill River.
Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Broad Mountain, Foster Township, Schuylkill County; elevation 1,720.

Course—Southeasterly to West Branch Schuylkill River.

Mouth—At Westwood Junction; elevation 672.

Length—Eleven miles.

Drainage Area—Contains 19.2 square miles in central Schuylkill County.

Topography—Mountainous; narrow valley flanked with high, steep hills; some bottom land in valleys between ridges.

Channel—Sinuous, through shale and sandstone formations, containing deposits of anthracite.

Profile—Rate of fall per mile: from elevations 1,400 to 1,200, 2.5 miles, 80 feet; thence to Forestville, elevation 800, 1.5 miles, 266.7 feet; thence to mouth, 6 miles, 21.3 feet.

Precipitation—Mean annual, 50 to 55 inches.

ARTIFICIAL FEATURES

Towns—Forestville (160), Phoenix Park, Llewellyn (412), Branchdale (813).

Industries—Coal mines; agriculture.

Pollution—Waste from coal mines.

Railroads—Philadelphia & Reading traverses basin and follows stream from Forestville to mouth; Lehigh Valley traverses basin and follows stream from Silverton to mouth.

Utilization—Water supply by Crystal Water Co. for several villages. Schaefer Creek for water supply at Silverton.

SCHUYLKILL (LITTLE) RIVER

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—Formed by junction of East and West branches, in Rush Township, Schuylkill County; elevation 1,070.

Course—Southerly to Schuylkill River.

Mouth—At Port Clinton; elevation 410.

Length—Twenty-seven miles.

Drainage Area—Contains 137.9 square miles, embracing portions of Schuylkill, Berks and Carbon counties.

Topography—Basin lies within Allegheny Mountain region; main valley is generally narrow, flanked with steep, high hills. Stream cuts through several ridges.

Channel—Sinuous, through shale and sandstone formations, containing deposits of anthracite in Panther Creek Valley.

Profile—Rate of fall per mile: from source to elevation 900, 3.5 miles, 48.6 feet; thence to elevation 800, 0.5 mile, 200 feet; thence to mouth, 23 miles, 17.0 feet.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Molino, May 1914.

Precipitation—Mean annual, 50 to 55 inches.

ARTIFICIAL FEATURES

Towns—Lofty (186), Quakake (250), Barnesville (440), Tamaqua (9,462), Summit Hill (4,209), Lansford (8,321), Coaldale (5,154), Seek (658), Hecla (126), New Ringgold (266), McKeansburg (329), Port Clinton (491).

Industries—Coal mines; railroad yards and shops; agriculture; ice harvesting; manufacturing.

Pollution—Waste from coal mines from above Tamaqua to mouth.

Railroads—Philadelphia & Reading, Central Railroad of New Jersey and Lehigh Valley traverse basin, Philadelphia & Reading following stream from Mintzers to mouth.

Utilization—Industrial supply at Tamaqua; water power for small mills. Hosensock Creek, a tributary of Pine Creek, for water supply at Buck Mountain and Vulcan; Owl Creek and Rabbit Run for water supply at Tamaqua.

SCHWABEN CREEK

Tributary to Mahanoy Creek.

Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—In Upper Mahanoy Township, southern Northumberland County; elevation 970.

Course—Westerly to Mahanoy Creek.

Mouth—Three miles northeast of Herndon; elevation 500.

Length—Eleven and one-half miles.

Drainage Area—Contains 30.1 square miles in southern Northumberland County.

Topography—Rough and hilly country lying between mountain ranges; main valley carved by many mountain streams.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from source to elevation 800, 1 mile, 170 feet; thence to mouth, 10.5 miles, 28.6 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Greenbriar (140), Rebuck (250), Urban (121).

Industries—Agriculture.

SCRUBGRASS CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Irwin Township, southwestern Venango County; elevation 1,500.

Course—Southeasterly and northeasterly to Allegheny River.

Mouth—Near Kennerdell; elevation 915.

Length—Eleven and one-half miles.

Drainage Area—Contains 39.5 square miles in southwestern Venango County.

Topography—Broken and hilly; in lower course stream is flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing some oil.

Profile—Rate of fall, from source to mouth, 50.9 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Wesley (251), Clintonville (335).

Industries—Agriculture.

Utilization—Water power by a few small grist mills.

SCRUBGRASS (LITTLE) CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Venango Township, northern Butler County; elevation 1,500.

Course—Northeasterly into Venango County to Allegheny River.

Mouth—Five miles northwest of Emlenton; elevation 896.

Length—Eight miles.

Drainage Area—Contains 25.9 square miles in northern Butler and southern Venango counties.

Topography—Broken and hilly country, with steep hills flanking main valley in lower course.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall, from source to mouth, 75.5 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Eau Claire (347), Eakins Corners (50).

Industries—Agriculture.

Utilization—Water power by a small grist mill.

SEELY CREEK

Tributary to Chemung River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Wells Township, northwestern Bradford County.

Course—Northerly into New York to Chemung River.

Mouth—In New York.

Length—In Pa., 7.5 miles.

Drainage Area—In Pa., 88.2 square miles in northwestern Bradford and northeastern Tioga counties.

Topography—Rough and hilly country; valley contains bottom lands flanked with high, steep hills.

Channel—Sinuous, through shale and sandstone formations; bordered with alluvial flood plains.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Daggett (50), Wells (105), Trowbridge (66), Millerton (421), Gillett (247), Fassett (60).

Industries—Agriculture.

Railroads—Northern Central and Erie traverse basin.

SEWICKLEY CREEK

Tributary to Ohio River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Marshall Township, northwestern Allegheny County; elevation 1,100.

Course—Southwesterly to Ohio River, forming Allegheny-Beaver county boundary for last 6.5 miles.

Mouth—At Ambridge; elevation 684.4.

Length—Ten and one-half miles.

Drainage Area—Contains 30.8 square miles in northwestern Allegheny and southeastern Beaver counties.

Topography—Broken and hilly; valleys flanked with steep hills 300 to 500 feet high.

Channel—Sinuous, through clay and sandstone; bordered with gently sloping banks and in places with flatlands, especially in lower course and at mouth.

Profile—Rate of fall per mile: from source to elevation 900, 3 miles, 66.7 feet; thence to mouth, 7.5 miles, 28.7 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Ambridge (5,205).

Industries—Bridge works at Ambridge; agriculture; oil.

SEWICKLEY CREEK

Tributary to Youghiogheny River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Unity Township, southern Westmoreland County.

Course—Westerly to Youghiogheny River.

Mouth—At Gratztown, 1 mile northwest of West Newton; elevation 738.

Length—Thirty-one and one-half miles.

Drainage Area—Contains 165.0 square miles in southwestern Westmoreland County.

Topography—Rolling hills; main valley is wide with gently sloping hills, except for a 4-mile stretch in lower course, where it is narrow and hemmed in with steep hills.

Channel—Tortuous, through shale and sandstone formations, containing rich coal beds; wide flats; from Mill Grove to mouth, through flood plains, flanked with steep hills on both sides.

Profile—Rate of fall per mile: from elevations 960 to 900, 13 miles, 4.6 feet; thence to mouth, 11 miles, 14.7 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Greensburg (13,012), Tarrs (600), Ruffs Dale (500), Herminie (740).

Industries—Extensive coal mining and coking; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream in upper and lower course.

Utilization—Headwaters of main stream and Township Line Run for water supply by territory between Greensburg and Irwin. Headwaters for industrial water supply by Standard Water Co. near Pleasant Unity; also by Sewickley Water Co. 8 miles southeast of Greensburg. Tributaries of Boyer Run, Buffalo Run and Little Sewickley Creek for mining and coking purposes. Water power for a grist mill at New Stanton.

SEWICKLEY (LITTLE) CREEK

Tributary to Sewickley Creek. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Hempfield Township, western Westmoreland County, 2.5 miles west of Greensburg; elevation 1,240.

Course—Southwesterly to Sewickley Creek.

Mouth—Near Cowansburg; elevation 765.

Length—Thirteen miles.

Drainage Area—Contains 31.5 square miles in western central Westmoreland County.

Topography—Rolling hills; main valley has flats flanked with gently sloping hills.

Channel—Sinuous, through flats.

Profile—Rate of fall, from source to mouth, 36.5 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Arona (683), Herminie (740).

Industries—Coal mining and coking; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream from headwaters to mouth.

Utilization—Small tributary for water supply at Edna No. 2.

SHADE CREEK

Tributary to Black Log Creek. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In Dublin Township, southeastern Huntingdon County.

Course—Northwesterly, by a circuitous route, to Black Log Creek.

Mouth—Two miles southeast of Orbisonia.

Length—Nine miles.

Drainage Area—Contains 27.8 square miles in southeastern Huntingdon County.

Topography—Mountainous; headwaters in open valley; main stream cuts through ridge and continues between parallel ridges to mouth.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Neelyton (65), McNeal (37), Shade Gap (143).

Industries—Agriculture; timber; flour mill.

Railroads—East Broad Top & Coal Co. follows stream from Neelyton to mouth.

Utilization—Water power for small grist mill at Shade Gap.

SHADE CREEK

Tributary to Stony Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—Formed by junction of Dark Shade Creek and Clear Shade Creek, in northeastern Somerset County.

Course—Northwesterly to Stony Creek.

Mouth—At Seanor.

Length—Six and one-half miles.

Drainage Area—Contains 98.4 square miles in northeastern Somerset County.

Topography—Broken and hilly.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Ashtola (116), Hillsboro (75).

Industries—Coal mines; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin.

Utilization—Main stream and Clear Shade Creek for water supply at Seanor, Windber and Scalp Level.

SHAMOKIN CREEK

Tributary to Susquehanna River.

Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—In Conyngham Township, southern Columbia County; elevation 1,700.

Course—Westerly into Northumberland County to Shamokin; thence northerly to Crowl; thence westerly to Susquehanna River.

Mouth—At Sunbury; elevation 424.

Length—Thirty-five miles.

Drainage Area—Contains 137.6 square miles in southern Columbia and central Northumberland counties.

Topography—Broken and mountainous; main valley cuts through Big Mountain and Little Mountain just north of Shamokin, and broadens into a wide rolling country in lower course.

Channel—Sinuous, through shale and sandstone formations, containing rich deposits of anthracite; through wide alluvial flats in lower course; extensive culm deposits.

Profile—Rate of fall per mile: from source to Mt. Carmel, elevation 1,100, 3 miles, 200 feet; thence to Shamokin, elevation 700, 11.5 miles, 34.8 feet; thence to mouth, 20.5 miles, 13.5 feet.

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Mt. Carmel (17,532), Shamokin (19,588), Sunbury (13,770).

Industries—Coal mines; silk and woolen mills; foundries; nail and iron works; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania and Philadelphia & Reading traverse basin and follow stream from Mt. Carmel to mouth; Lehigh Valley traverses upper basin.

Utilization—Pennsylvania Railroad water supply at Haas. Eagle and Trout runs by Roaring Creek Water Co. Water power for a few small mills.

SHAMOKIN (LITTLE) CREEK

Tributary to Shamokin Creek.

Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—In Shamokin Township, central Northumberland County; elevation 960.

Course—Northwesterly, by a circuitous route, to Shamokin Creek.

Mouth—Near Sunbury; elevation 446.

Length—Thirteen miles.

Drainage Area—Contains 29.1 square miles in central Northumberland County.

Topography—Headwaters in Little Mountain; main basin rough and hilly; main valley narrow, flanked with steep hills in lower course.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from source to elevation 700, 2 miles, 130 feet; thence to mouth, 11 miles, 23.1 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sevenpoints (143).

Industries—Agriculture.

Utilization—Water supply at Sunbury.

SHAVER CREEK

Tributary to Frankstown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Jackson Township, northeastern Huntingdon County.

Course—Southwesterly to Frankstown Branch Juniata River.

Mouth—At Petersburg.

Length—Nineteen and one-half miles.

Drainage Area—Contains 75.2 square miles in northern Huntingdon County.

Topography—Basin lies between two parallel mountain ridges and contains rough and hilly country.

Channel—Sinuous, through sandstone formation, with some limestone in southern portion of basin.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Manor Hill (66), Neffs Mills (164), Saulsburg (87), Petersburg (705).

Industries—Agriculture.

Utilization—Water power for a few small mills.

SHAVERS CREEK

Tributary to Raystown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Monroe Township, southeastern Bedford County.

Course—Northeasterly to Raystown Branch Juniata River.

Mouth—Three miles east of Everett.

Length—Twenty-five miles.

Drainage Area—Contains 98.5 square miles in southeastern Bedford and western Fulton counties.

Topography—Mountainous; narrow valley flanked with steep, high hills.

Channel—Sinuous in upper basin; tortuous in lower course; carved in shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Chapmans Run (76), Clearville (160), Mattie (55).

Industries—Agriculture.

SHAWNEE BRANCH

Tributary to Raystown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Napier Township, western Bedford County; elevation 1,900.

Shenango River at Sharon

Course—Southeasterly to Raystown Branch Juniata River.

Mouth—Near Manns Choice; elevation 1,133.

Length—Eleven miles.

Drainage Area—Contains 38.3 square miles in western Bedford County.

Topography—Rough mountainous country; main valley varies from narrow steep-sided passes through ridges to broad rolling country between the ridges.

Channel—Sinuous, through sandstone formations.

Profile—Rate of fall per mile: from elevations 1,500 to 1,300, 2.5 miles, 80 feet; thence to mouth, 7.5 miles, 22.3 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Helixville (40), Schellburg (314).

Industries—Agriculture.

Utilization—Water power by small grist mill near Schellburg.

SHENANGO RIVER

Tributary to Beaver River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In East Fallowfield Township, southwestern Crawford County; elevation 1,050.

Course—Northwesterly to a point 3 miles west of Linesville; thence southerly, through Mercer County, into Lawrence County, to join Mahoning River and form Beaver River, crossing state boundary four times.

Mouth—Two and one-half miles southwest of New Castle; elevation 763.

Length—Eighty-seven and one-half miles.

Drainage Area—Total, 1,080.0 square miles; in Pa., 793.0 square miles, embracing portions of Crawford, Mercer and Lawrence counties.

Topography—Rolling hills and broad valleys within the glaciated area; many swamps and lakes; main valley flanked with steep hills at "Big Bend" and a few other points, but generally broad and flat between gently sloping sides.

Geology—Surface formations are clay and gravel with boulders from glacial action and moraine deposit; sandstone beneath, outcropping in stream valleys of lower courses and tributaries; some oil, gas and coal.

Channel—Through swamps and in clay at headwaters and upper course, gradually passing through gravel and boulder formations and into sandstone in lower course.

Profile—

From	Elevation	To	Elevation	Miles	Fall in Feet	Feet per Mile
Source,	1,050	Edge swamp,	1,020	0.3	30.0	100.0
Edge swamp,	1,020	Blair Road,	1,006	2.7	14.0	5.2
Blair Road,	1,006	P. R. R. crossing in swamp,	994.5	3.2	11.5	3.6
P. R. R. crossing,	994.5	Manning Bridge,	985.5	5.5	9.0	1.6
Manning Bridge,	985.5	Westford Bridge (end swamp).	978.5	5.5	7.0	1.3
Westford Bridge,	978.5	Jamestown,	973	6.7	5.5	0.8
Jamestown,	973	Greenville (top dam),	942	6.5	31.0	4.8
Greenville,	942	Sharpsville (canal lock),	866	24.8	76.0	3.1
Sharpsville,	866	Sharon (Chestnut Street),	843	4.4	23.0	5.2
Sharon,	843	New Castle (Washington Street).	789	24.4	54.0	2.2
New Castle,	789	Mouth,	763	3.5	26.0	7.4
Source,	1,050	Mouth,	763	87.5	287.0	3.3

Swamps—Many in headwaters, including Pymatuning Swamp, having an area of about 16 square miles. A few small lakes and springs are found.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Turnersville, February 1912. At Sharon, August 1909. At New Castle, July 1914.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Jamestown (822), Greenville (5,909), Sharpsville (3,634), Sharon (15,270), Farrell (10,190), Mercer (2,026), New Castle (36,280).

Industries—Blast furnaces; iron and steel works; tin mills; tube mills; clay works; glass works; cement works; agriculture.

Railroads—Pennsylvania Lines West of Pittsburgh traverse basin and follow stream from headwaters to mouth; Erie traverses basin and follows stream from Greenville to mouth; Bessemer & Lake Erie, Lake Shore & Michigan Southern, Sharpsville and Western Allegheny traverse basin.

Utilization—Domestic and industrial supply at Sharpsville, Sharon and New Castle, the industrial consumption being enormous. Railroad supply at Greenville, Shenango and Sharon. Water power for feed and flour mills at Jamestown, Greenville, New Hamburg, Clarksville, Pulaski and Mahoningtown. This development uses 35 per cent of total fall from Jamestown to mouth.

PYMATUNING RESERVOIR PROJECT

The Commission made a detailed report in December 1912 on the development of Pymatuning Swamp as a storage reservoir for regulating the water supply along the Shenango and Beaver rivers. The water supply is a serious question during low water, especially on account of the high industrial consumption. It is proposed to regulate the minimum flow at Sharon to 450 second-feet, the minimum flow being 20 second-feet under present conditions. This reservoir would impound 8,182,300,000 cubic feet of water by 46-foot earth dam at Turnersville.

SHENANGO (LITTLE) RIVER

Tributary to Shenango River. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Lake Township, eastern Mercer County; elevation 1,400.

Course—Northwesterly to junction of Crooked Creek; thence southwesterly to Shenango River.

Mouth—At Greenville; elevation 942.

Length—Twenty-two and one-half miles.

Drainage Area—Contains 105.1 square miles in northern Mercer and southwestern Crawford counties.

Topography—Broad, flat valleys, swamps retarding flow with glacial drift and numerous trees and brush; waste lands, except in lower course. Main valley swampy from source to junction of Crooked Creek, except at Clarks Mills, 15 miles above mouth, where it narrows and becomes steep for some distance; last 3 miles between converging hills.

Channel—Tortuous, through swamps, except near Clarks Mills and between Crooked Creek and mouth, where channel is through glacial drift of gravel.

Profile—Rate of fall per mile: from elevations 1,180 to 1,140, 5 miles, 8 feet; thence to elevation 1,000, 6 miles, 23.3; thence to mouth, 11 miles, 5.3 feet.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Greenville, January 1914.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Clarks Mills (210), Hadley (276), Adamsville (175), Greenville (5,909).

Industries—Car and repair shops; tube mills; flour mills; agriculture.

Railroads—Lake Shore & Michigan Southern traverses basin and follows stream from headwaters to Osgood; Bessemer & Lake Erie and Erie traverse basin and follow stream from Osgood to mouth.

Utilization—Springs in headwaters for water supply at Stoneboro. Greenville has emergency intake in gravel bed of creek. Water power for a small mill.

SHERMAN CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Toboyne Township, southwestern Perry County.

Course—Northeasterly to Susquehanna River.

Mouth—At Duncannon; elevation 332.

Length—Fifty-one miles.

Drainage Area—Contains 250.3 square miles in southern Perry County.

Topography—Broken, mountainous country; narrow main valley flanked with steep, high hills between Pisgah and Rattlesnake ridges, and in lower course along northern slope of Pine Ridge.

Geology—Shale, sandstone and limestone formations.

Channel—Tortuous, through a gorge between Pisgah and Rattlesnake ridges and in lower 3 miles.

Profile—Rate of fall, from elevation 460 to mouth, 18.5 miles, 6.9 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—New Germantown (250), Blain (326), Loysville (500), Landisburg (252), Shermans Dale (572), Duncannon (1,474).

Industries—Agriculture; iron and novelty works.

Railroads—Newport & Sherman's Valley traverses basin and follows stream in upper course.

Utilization—Industrial supply at Duncannon. Two small tributaries for water supply at Duncannon. Water power for several small mills.

SHICKSHINNY CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Ross Township, northwestern Luzerne County; elevation 1,260.

Course—Southeasterly to North Branch Susquehanna River.

Mouth—At Shickshinny; elevation 496.

Length—Ten miles.

Drainage Area—Contains 33.9 square miles in northwestern Luzerne and northeastern Columbia counties.

Topography—Rough and hilly country containing swamps and lakes in upper basin; mountainous in lower basin; main stream cuts through mountain range in lower course, while Little Shickshinny Creek basin lies between Lee and Huntington mountains.

Channel—Sinuous, through shale and sandstone formations; in a gorge for a mile above mouth.

Profile—Rate of fall per mile: from source to elevation 1,100, 1 mile, 160 feet; thence to mouth, 9 miles, 67.1 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Muhlenberg (70), Shickshinny (1,917).

Industries—Agriculture.

Utilization—Main stream by West End Coal Co. at Mocanaqua. Little Shickshinny Creek for water supply at Shickshinny and Mocanaqua. Water power for small mills.

SHOHOLA CREEK

Tributary to Delaware River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Pocono Mountains, Palmyra Township, western Pike County.

Course—Northeasterly to Delaware River.

Mouth—At Shohola; elevation 562.

Length—Twenty-five miles.

Drainage Area—Contains 84.1 square miles in northern central Pike County.

Topography—Broken, mountainous country containing glacial lakes and swamps in upper basin; main valley becomes narrow below Shohola Falls; well wooded. Good storage sites in upper basin. Shohola Falls Dam is third largest body of water in Pennsylvania.

Channel—Sinuous, through glacial drift in upper course; through a sandstone gorge, with vertical banks 300 feet high, from Shohola Falls to mouth.

Profile—Rate of fall per mile: from elevations 1,140 to 1,040, 0.5 mile, 200 feet (Shohola Falls); thence to mouth, 9 miles, 53.1 feet.

Lakes—Lake Bruce (47.6 acres), Lake Scott (28.6 acres), Lake Giles (114.3 acres), Billings Pond (42.5 acres), Shohola Falls Dam (569.9 acres), Greely Lake (60.3 acres).

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Lords Valley, September 1911; discontinued August 1913. On Rattlesnake Brook at Spring Brook, September 1911.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Lords Valley (57), Greeley (180), Shohola (138).

Industries—Timber; agriculture; ice harvesting; summer resorts; Blooming Grove Hunting and Fishing Club Reserve.

Utilization—Water supply and lumber transportation by Harris Boom Co. (Erie Railroad). An extensive water power development has been proposed.

SHOUPS RUN

Tributary to Raystown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Carbon Township, southwestern Huntingdon County.

Course—Northwesterly into Bedford County to Raystown Branch Juniata River.

Mouth—At Saxton.

Length—Seven and one-half miles.

Drainage Area—Contains 21.3 square miles in southwestern Huntingdon and northeastern Bedford counties.

Topography—Mountainous; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing deposits of bituminous coal.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Broadtop (478), Dudley (440), Coalmont (228), Saxton (1,195).

Industries—Railroad shops; furnace; brick works; planing mill; coal mines; agriculture.

Railroads—Huntingdon & Broad Top Mountain follows stream from headwaters to mouth.

Utilization—Miller Run and Putts Run for water supply at Saxton; Miller Run for industrial supply at Melrose. Main stream for water power by small grist mill at Saxton.

SHRADER BRANCH (or SCHRADER RUN)

Tributary to Towanda Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In McNett Township, northeastern Lycoming County.

Course—Northeasterly, through Sullivan County, into Bradford County to Towanda Creek.

Mouth—Opposite Powell.

Length—Twenty-three and one-half miles.

Drainage Area—Contains 80.9 square miles, embracing portions of Lycoming, Sullivan and Bradford counties.

Topography—Rough and hilly; narrow valley flanked with steep hills, rounded by glacial action.

Channel—Sinuous, through shale and sandstone formations, containing semi-bituminous coal.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Laquin (160).

Industries—Coal mines; agriculture.

Railroads—Susquehanna & New York follows stream from Wheelerville to mouth.

Utilization—Industrial supply at Powell.

SIDELING HILL CREEK

Tributary to Potomac River. Basin: Potomac.

NATURAL FEATURES

Source—Formed by junction of East and West branches, in Mann Township, southeastern Bedford County.

Course—Southeasterly through Fulton County into Maryland, crossing state boundary at elevation 636; thence southerly to Potomac River.

Mouth—Near Lineburg, Md.; elevation 445.

Length—In Pa., 5.5 miles.

Drainage Area—In Pa., 70.4 square miles in southeastern Bedford and southwestern Fulton counties.

Topography—Broken, mountainous country.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Emerson (27), Robinsonville (36), Purcell (51), Pineycreek (25), Silvermills (46).

Industries—Agriculture.

Utilization—Water power for a few small mills.

SIDELING HILL CREEK

Tributary to Aughwick Creek. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—Formed by junction of Oregon Creek and Elbow Run, in Wells Township, northwestern Fulton County.

Course—Northeasterly into Huntingdon County to Aughwick Creek, crossing Fulton-Huntingdon county boundary five times.

Mouth—Near Maddensville.

Length—Nineteen and one-half miles.

Drainage Area—Contains 96.5 square miles in northwestern Fulton and southern Huntingdon counties.

Topography—Mountainous; narrow valleys flanked with steep, high hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—New Grenada (120), Waterfall (78), Dublin Mills (40), Maddensville (93).

Industries—Agriculture; coal mines.

SINKING CREEK

Tributary to Penns Creek. Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—Swamps in Harris Township, southern Center County.

Course—Northeasterly to Penns Creek.

Mouth—At Rising Springs.

Length—Eighteen miles.

Drainage Area—Contains 47.5 square miles in southeastern Center County.

Topography—Mountainous; main valley flanked with steep slopes; gorge-like where it gaps the mountain ranges.

Channel—Tortuous, through limestone formation, flowing underground in places.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Tusseyville (130), Potters Mills (339), Center Hall (500).

Industries—Agriculture.

Railroads—Pennsylvania traverses northern part of basin.

Utilization—Water power for a few small grist mills.

SINKING RUN

Tributary to Little Juniata River. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Snyder Township, northern Blair County.

Course—Southeasterly to Little Juniata River.

Mouth—At Tyrone.

Length—Six and one-half miles.

Drainage Area—Contains 8.2 square miles in northern Blair County.

Topography—Mountainous; narrow valley flanked with steep, high hills; well wooded.

Channel—Sinuous, through a ravine, in shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Tyrone (7,176).

Industries—Sawmills; iron and steel mills; flour mills; paper mills; lead and zinc mills.

Utilization—Water supply at Tyrone.

SINNEMAHONING CREEK

Tributary to West Branch Susquehanna River.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Driftwood Branch and Bennett Branch, at Driftwood, southeastern Cameron County.

Course—Southeasterly into Clinton County to West Branch Susquehanna River.

Mouth—At Keating.

Length—Sixteen miles.

Drainage Area—Contains 1,032.7 square miles, embracing portions of Clearfield, Elk, McKean, Cameron, Potter and Clinton counties.

Topography—Rough and hilly country in Allegheny Plateau; narrow valleys flanked with steep hills; well wooded in basin of Driftwood Branch.

Geology—Shale and sandstone formations, containing some bituminous coal.

Channel—Sinuous, through narrow valley over gravel bed with some rock ledges; steep banks with very little bottom land.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Emporium (2,916), Driftwood (517), Sinnemahoning (688), Keating (60).

Industries—Tannery; coal mines; timber; agriculture.

Railroads—Pennsylvania, Buffalo & Susquehanna and several small railroads traverse basin, Pennsylvania following stream from source to mouth.

SINNEMAHONING CREEK, FIRST FORK

Tributary to Sinnemahoning Creek.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Prouty Branch and Ayer Hill Branch, in Summit Township, central Potter County.

Course—Southwesterly into Cameron County to Sinnemahoning Creek.

Mouth—At Sinnemahoning.

Length—Thirty-one miles.

Drainage Area—Contains 272.5 square miles in southwestern Potter and eastern Cameron counties.

Topography—Rough and hilly country in Allegheny Plateau; narrow valleys flanked with steep hills; well wooded.

Geology—Shale and sandstone formations, containing coal.

Channel—Sinuous, through narrow valley with steep banks; gravel bed with rock ledges.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Borie (61), Austin (2,941), Costello (956), Conrad (372), Wharton (110), Firstfork (44), Sinnemahoning (688).

Industries—Timber; foundry; brick works; paper mills; agriculture.

Pollution—Waste from paper mills.

Railroads—Buffalo & Susquehanna traverses basin and follows stream from Costello to mouth.

Utilization—Industrial supply at Costello.

SINNEMAHONING CREEK, FIRST FORK, EAST FORK

Tributary to First Fork Sinnemahoning Creek.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Summit Township, central Potter County.

Course—Southwesterly to First Fork Sinnemahoning Creek.

Mouth—At Wharton.

Length—Sixteen and one-half miles.

Drainage Area—Contains 54.2 square miles in southern central Potter County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Conrad (372), Logue (32), Wharton (110).

Industries—Timber; agriculture; tanneries.

Railroads—Buffalo & Susquehanna follows stream from headwaters to mouth.

SINNEMAHONING PORTAGE

Tributary to Driftwood Branch.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Keating Township, western Potter County.

Course—Southwesterly, through McKean County, into Cameron County; thence southerly to Driftwood Branch Sinnemahoning Creek.

Mouth—At East Emporium.

Length—Fifteen miles.

Drainage Area—Contains 76.6 square miles, embracing portions of Potter, McKean and Cameron counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Gardeau (55), Sizerville (87), East Emporium (36).

Industries—Coal mines; timber; agriculture.

Railroads—Pennsylvania follows stream from source to mouth.

Utilization—Pennsylvania Railroad water supply at Emporium Junction and Shippen.

SIXTEENMILE CREEK

Tributary to Lake Erie. **Basin:** Erie.

NATURAL FEATURES

Source—In New York, near Pennsylvania-New York boundary.

Course—Westerly into Pennsylvania; thence northwesterly and northeasterly to Lake Erie.

Mouth—Two miles north of North East; elevation 573.

Length—In Pa., 8.5 miles.

Drainage Area—Total, 17.6 square miles; in Pa., 16.9 square miles in northeastern Erie County.

Topography—Sloping area, with streams running in ravines in alluvial formations.

Channel—Sinuous, in clay, shale and sandstone, being narrow and having steep banks.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—North East (2,672).

Industries—Agriculture; fruit growing.

Railroads—Lake Shore & Michigan Southern and New York, Chicago & St. Louis traverse basin.

Utilization—Water supply and water power at North East.

SKINNER CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Liberty Township, eastern McKean County.

Course—Easterly to Allegheny River.

Mouth—Opposite Port Allegany.

Length—Five and one-half miles.

Drainage Area—Contains 11.7 square miles in eastern McKean County.

Topography—Rough and hilly; narrow valley flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Timber; agriculture.

Utilization—Water supply at Port Allegany.

SKIPPACK CREEK

Tributary to Perkiomen Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—Near Souderton, Franconia Township, Montgomery County; elevation 440.

Course—Southwesterly to Perkiomen Creek.

Mouth—Three miles above mouth of Perkiomen Creek; elevation 88.

Length—Sixteen miles.

Drainage Area—Contains 55.2 square miles in central Montgomery County.

Topography—Rolling agricultural country of the Piedmont Plateau.

Channel—Sinuous, through red shale and sandstone formations; through a narrow valley for last mile.

Profile—Rate of fall per mile: from source to elevation 200, 4.5 miles, 53.3 feet; thence to mouth, 11.5 miles, 9.7 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Souderton (1,875), Mainland (200), Skippack (402), Lansdale (3,551), Kulpsville (475).

Industries—Stove works; radiator works; agricultural works; silk mill; shirt factory; glue factory; agriculture.

Railroads—Philadelphia & Reading tráverses upper basin.

SLAB CABIN RUN

Tributary to Spring Creek.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Ferguson Township, southern Center County.

Course—Northeasterly to Spring Creek.

Mouth—Northeast of State College; elevation 940.

Length—Nine miles.

Drainage Area—Contains 36.5 square miles in southern Center County.

Topography—Mountainous in headwaters; main basin lies in broad, rolling agricultural valley.

Channel—Sinuous, through sandstone and limestone formations.

Profile—Rate of fall, from elevation 1,100 to mouth, 6.5 miles, 24.6 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Pine Grove Mills (362), State College (1,425).

Industries—Agriculture; wood works.

Utilization—Roaring Run for water supply at State College.

SLATE RUN

Tributary to Pine Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Elk Township, southwestern Tioga County.

Course—Southerly into Lycoming County; thence southeasterly to Pine Creek.

Mouth—Opposite Slate Run.

Length—Nine and one-half miles.

Drainage Area—Contains 34.4 square miles, embracing portions of Tioga, Potter and Lycoming counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 30 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Timber; agriculture.

SLIPPERY ROCK CREEK

Tributary to Connoquenessing Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Venango Township, northern Butler County; elevation 1,480.

Course—Southwesterly into Lawrence County to Connoquenessing Creek.

Mouth—One mile east of Ellwood City; elevation 817.

Length—Forty-seven miles.

Drainage Area—Contains 403.8 square miles, embracing portions of Venango, Mercer, Butler, Beaver and Lawrence counties.

Topography—Above Kennedy Mill, broad valleys with gentle slopes; highlands extensively cultivated, while lowlands contain many swamps and a few lakes of glacial origin. Below Kennedy Mill, main valley is narrow with massive sandstone blocks covering the high, precipitous banks; tributaries are small, cutting deep ravines and in places plunging over precipitous banks of main stream.

Geology—Principally sandstone formations; some limestone. Oil, gas, and some coal are found.

Channel—From source to Kennedy Mill, meandering through clay, gravel and boulders, in places sluggish and broadening into swamps; thence to mouth, through a deep gorge eroded in huge sandstone boulders of the terminal moraine.

Profile—Rate of fall per mile: from elevations 1,200 to 1,000, 32 miles, 6.2 feet; thence to elevation 900, 3 miles, 33.3 feet; thence to mouth, 7.5 miles, 11.1 feet.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Wurtemburg, December 1911.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Argentine (350), Grove City (3,674), Slippery Rock (870), Wurtemburg (491).

Industries—Gas engine, carriage and other manufacturing plants at Grove City; extensive agriculture.

Railroads—Bessemer & Lake Erie traverses basin and follows stream in upper course; Pennsylvania Lines West of Pittsburgh and Western Allegheny traverse basin.

Utilization—Main stream for water supply at Ellwood City. North Branch for industrial supply at Deegan. An extensive power development of this stream has been proposed. Many small grist mills along main stream and Wolf Creek.

SLIPPERY ROCK CREEK, SOUTH BRANCH

Tributary to Slippery Rock Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Concord Township, eastern Butler County; elevation 1,360.

Course—Northwesterly to Slippery Rock Creek.

Mouth—One mile southeast of Branchton; elevation 1,165.

Length—Thirteen and one-half miles.

Drainage Area—Contains 39.4 square miles in northern Butler County.

Topography—Broad valley with gently sloping banks and wide plains, extensively cultivated.

Channel—Sinuous, through clay, gravel and boulders.

Profile—Rate of fall, from elevation 1,220 to mouth, 12.5 miles, 4.4 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Hooker (93), North Washington (190), West Sunbury (283).

Industries—Agriculture; coal.

SNAKE CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—Near Montrose, in Bridgewater Township, Susquehanna County.

Course—Northeasterly into New York to North Branch Susquehanna River.

Mouth—In New York, 1.5 miles from state boundary.

Length—In Pa., 14 miles.

Drainage Area—In Pa., 70.0 square miles in northern central Susquehanna County.

Topography—Rough and hilly; lakes of glacial origin on west side of basin, the east side being bounded by a steep mountain.

Channel—Sinuous, through glacial drift and sandstone formation.

Lakes—Laurel Lake (48.5 acres), Jones Lake (45.3 acres), Silver Lake (83.3 acres), Tripp Lake (26.2 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Montrose (1,914), Franklin Forks (80), Lawsville Center (110), Silver Lake (62), Brookdale (60).

Industries—Agriculture; summer resorts.

Utilization—Domestic and industrial supply at Montrose. Water power for small mill near Montrose.

SOLOMON CREEK (or BUTTONWOOD CREEK)

For description see Buttonwood Creek.

SOUTH CREEK

Tributary to Seely Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Columbia Township, northwestern Bradford County.

Course—Northerly into New York to Seely Creek.

Mouth—In New York.

Length—In Pa., 9 miles.

Drainage Area—In Pa., 30.3 square miles in northwestern Bradford County.

Topography—Broken and hilly; valley flanked with steep hills, rounded by glacial action.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Gillett (247), Fassett (60).

Industries—Agriculture.

Railroads—Northern Central follows stream from source to state boundary.

SOUTH CREEK

Tributary to Sugar Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Columbia Township, northwestern Bradford County.

Course—Southerly to Sugar Creek.

Mouth—At Troy.

Length—Seven and one-half miles.

Drainage Area—Contains 30.6 square miles in western Bradford and eastern Tioga counties.

Topography—Broken and hilly; broad agricultural valley flanked with rolling hills.

Channel—Sinuous, through shale and sandstone formations and in glacial deposits.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Columbia Cross Roads (175), Austinville (138), Troy (1,288).

Industries—Machine shops; tanneries; agriculture.

Railroads—Northern Central follows stream from source to mouth.

SPRING BROOK

Tributary to Lackawanna River.

Sub-basin: Lower North Branch Susquehannna.

NATURAL FEATURES

Source—In Covington Township, southeastern Lackawanna County; elevation 1,865.

Course—Northwesterly, crossing northeastern corner of Luzerne County and returning to Lackawanna County, to Lackawanna River.

Mouth—At Moosic; elevation 628.

Length—Sixteen miles.

Drainage Area—Contains 57.6 square miles in southern Lackawanna and northeastern Luzerne counties.

Topography—Mountainous; swampy in headwaters, with main valley lying between high, steep mountains in middle and lower course.

Channel—Sinuous, through shale and sandstone formations, containing coal in lower course.

Profile—Rate of fall, from source to mouth, 77.3 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Moosic (3,964).

Industries—Coal mines; agriculture.

Railroads—Wilkes-Barre & Eastern traverses basin; Scranton & Spring Brook follows stream from Rockdale to mouth.

Utilization—Main stream and several small tributaries by Spring Brook Water Supply Co. at Wilkes-Barre and vicinity.

SPRING CREEK

Tributary to Tulpehocken Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Heidelberg Township, western Berks County.

Course—Northeasterly, by a circuitous route, to Tulpehocken Creek.

Mouth—One mile southeast of Obold.

Length—Ten miles.

Drainage Area—Contains 31.0 square miles in western Berks and eastern Lebanon counties.

Topography—Rough and hilly; narrow valley flanked with steep hills; carved by numerous small streams.

Channel—Sinuous, through slate and limestone formations.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Robesonia (700), Wernersville (1,000), Lower Heidelberg (186).

Industries—Cigar box factory; shirt factory; hosiery mill; sanatoria.

Railroads—Philadelphia & Reading traverses upper basin.

Utilization—Water power for a few small grist mills.

SPRING CREEK

Tributary to Bald Eagle Creek.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Tussey Mountain, Potter Township, middle southern Center County.

Course—Northwesterly and northeasterly to Bald Eagle Creek.

Mouth—At Milesburg; elevation 685.

Length—Twenty-four miles.

Drainage Area—Contains 146.0 square miles in southern central Center County.

Topography—Mountainous in headwaters; middle basin is a rolling agricultural valley; in lower basin main valley becomes gorge-like and cuts through Bald Eagle Ridge between Bellefonte and Milesburg.

Channel—Tortuous, through sandstone and limestone formations, forming a gorge in lower course.

Profile—Rate of fall per mile: from Boalsburg, elevation 1,080, to Lemont, elevation 980, 3.5 miles, 28.6 feet; thence to mouth, 16 miles, 18.4 feet.

Springs—This basin abounds in sandstone and limestone springs, which furnish a strong dry season flow.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Bellefonte, February 1911.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Boalsburg (417), Pine Grove Mills (362), State College (1,425), Lemont (310), Bellefonte (4,145), Milesburg (531).

Industries—Limestone quarries; agriculture; timber; iron ore mines; brick works; planing mills.

Railroads—Bellefonte Central and Central Railroad of Pennsylvania traverse basin; Pennsylvania traverses basin and follows stream in lower course.

Utilization—Main stream for Central Railroad of Pennsylvania water supply at Bellefonte. Tributaries for water supply at Boalsburg, Shingletown and Bellefonte; Buffalo Run for Bellefonte Central Railroad supply at Coleville. Main stream for water power at Milesburg. Cedar Run and Logan Branch for water power by small grist mills.

SPRING CREEK

Tributary to Clarion River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—Formed by junction of East Branch and Watson Branch, in Jenks Township, eastern Forest County.

Course—Southeasterly into Elk County to Clarion River.

Mouth—At Hallton.

Length—Ten miles.

Drainage Area—Contains 87.3 square miles in eastern Forest and western Elk counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; densely wooded.

Channel—Sinuous, through shale and sandstone formations, containing oil and gas.

Springs—This stream is fed by numerous sandstone springs in the headwaters.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Nansen (168), Chaffee (88), Duhring (75), Hallton (311).

Industries—Agriculture; timber.

Railroads—Tionesta Valley traverses basin and follows stream from source to mouth.

SPRING CREEK

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In North Whitehall Township, northern Lehigh County; elevation 550.

Course—Northeasterly to Lehigh River.

Mouth—One mile northwest of Siegfried; elevation 298.

Length—Three miles.

Drainage Area—Contains 2.8 square miles in northern Lehigh County.

Topography—Rolling agricultural country, with well wooded hills in headwaters.

Channel—Sinuous, through slate and limestone formations.

Profile—Rate of fall, from source to mouth, 84 feet per mile.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Scheidy (46).

Industries—Cement works; slate quarries; agriculture.

Utilization—Water supply by Clear Springs Water Co.

SPRING CREEK

Tributary to Brokenstraw Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Eldred Township, western Warren County.

Course—Northeasterly, by a circuitous route, to Brokenstraw Creek.

Mouth—One mile south of Spring Creek.

Length—Nine and one-half miles.

Drainage Area—Contains 31.5 square miles in northeastern Crawford and western Warren counties.

Topography—Rolling hills and broad valleys due to glacial action; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—East Branch (98), West Springcreek (108).

Industries—Timber; agriculture.

SPRING (MIDDLE) CREEK (or MEANS RUN)

For description see Means Run.

SPRING RUN

Tributary to Trout Run.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Jay Township, southeastern Elk County.

Course—Southeasterly to Trout Run.

Mouth—Two miles northwest of Benezett.

Length—Seven and one-half miles.

Drainage Area—Contains 35.8 square miles in southeastern Elk County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture; timber.

SPRUCE CREEK

Tributary to Little Juniata River. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—Formed by junction of Beaver Brook and Half Moon Run, in Franklin Township, northern Huntingdon County.

Course—Southwesterly to Little Juniata River.

Mouth—At Spruce Creek.

Length—Ten miles.

Drainage Area—Contains 111.7 square miles in southern Center and northwestern Huntingdon counties.

Topography—Mountainous; valley flanked with parallel ranges; well wooded.

Channel—Sinuous, through limestone formation, containing some iron ore.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Franklinville (139), Warriors Mark (400), Graysville (130), Pennsylvania Furnace (263), Loveville (134), Stormstown (268), Spruce Creek (213).

Industries—Agriculture; iron ore; furnaces.

Railroads—Pennsylvania traverses upper basin.

SPRUCE RUN

Tributary to Buffalo Creek.

Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Hartley Township, western Union County.

Course—Easterly and southerly to Buffalo Creek.

Mouth—At Mazeppa; elevation 495.

Length—Fourteen miles.

Drainage Area—Contains 27.6 square miles in northwestern Union County.

Topography—Mountainous; narrow valley flanked with steep ridges.

Channel—Sinuous, through sandstone and shale formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Mazeppa (185).

Industries—Agriculture.

Utilization—Water supply at Lewisburg, Milton, West Milton and Montandon.

STAFFORD MEADOW BROOK

Tributary to Lackawanna River.
Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Roaring Brook Township, southern central Lackawanna County; elevation 1,835.

Course—Northwesterly, by a circuitous route, to Lackawanna River.

Mouth—At Scranton; elevation 656.

Length—Eleven and one-half miles.

Drainage Area—Contains 13.1 square miles in southern Lackawanna County.

Topography—Mountainous; narrow valley flanked with steep, high hills rounded by glacial action.

Channel—Sinuous, through shale and sandstone formations, containing coal deposits in lower basin.

Profile—Rate of fall, from source to mouth, 102.5 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Scranton (129,867).

Industries—Agriculture; coal mines.

Railroads—Erie traverses basin.

Utilization—Water supply by Scranton Gas & Water Co.

STANDING STONE CREEK

Tributary to Frankstown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Jackson Township, northeastern Huntingdon County.

Course—Southwesterly to Frankstown Branch Juniata River.

Mouth—At Huntingdon.

Length—Twenty-eight and one-half miles.

Drainage Area—Contains 113.9 square miles in northeastern Huntingdon County.

Topography—Broad basin lying between two parallel mountain ridges.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—McAlevys Fort (330), Cornpropsts Mills (53), Huntingdon (6,861).

Industries—Agriculture.

Utilization—Water supply at Huntingdon.

STARRUCCA CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Thomson Township, northeastern Susquehanna County.

Course—Northeasterly into Wayne County to Starrucca; thence northwesterly into Susquehanna County to North Branch Susquehanna River.

Mouth—At Lanesboro.

Length—Fifteen miles.

Drainage Area—In Pa., 77.4 square miles in northwestern Wayne and northeastern Susquehanna counties.

Topography—Rugged, hilly country, abounding in lakes and ponds of glacial origin.

Channel—Sinuous, through lakes, ponds and swamps in the glacial drift and sandstone formations.

Lakes—West Spruce Pond (63.2 acres), Coxtown Pond (109.7 acres), Island Pond (35.8 acres), Beaver Pond (20.3 acres), Wrighter Pond (91.4 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Starrucca (381), Thompson (322), Brandt (546), Lanesboro (771).

Industries—Agriculture; machine shop; summer resorts.

Railroads—Erie and Delaware & Hudson follow stream from headwaters to mouth.

Utilization—Erie Railroad supply at Starrucca; Delaware & Hudson Railroad supply at Lanesboro.

STERLING RUN

Tributary to Driftwood Branch.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Shippen Township, western Cameron County.

Course—Southeasterly to Driftwood Branch Sinnemahoning Creek.

Mouth—At Sterling Run.

Length—Eight miles.

Drainage Area—Contains 25.2 square miles in western Cameron County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sterling Run (430).

Industries—Agriculture; timber.

STONY CREEK

Tributary to Conemaugh River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Brothers Valley Township, central Somerset County, on the divide between Allegheny, Youghiogheny, Juniata and Potomac watersheds.

Course—Northerly into Cambria County, forming Cambria-Somerset county boundary for 3 miles, to join Little Conemaugh River and form Conemaugh River.

Mouth—At Johnstown; elevation 1,150.

Length—Forty and one-half miles.

Drainage Area—Contains 465.5 square miles in northern Somerset and southwestern Cambria counties.

Topography—Elevated and rolling plateau, bordered on east by Allegheny Mountains and on west by Laurel Ridge, which parallel northeast and southwest; slopes of both ranges are gentle. Through this plateau the creek has cut a narrow channel, which deepens toward the mouth. Wooded on the ridges and steep mountain slopes.

Geology—Shale and sandstone formations, containing rich coal deposits and some limestone.

Channel—Sinuous and well defined in shale and sandstone; steep banks with occasional alluvial flats at foot of the steep hills.

Profile—Rate of fall, from elevation 1,240 to mouth, 8.5 miles, 10.6 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Johnstown, June 1913.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Shanksville (846), Hooversville (990), Boswell (1,878), Windber (8,013), Scalp Level (1,424), Johnstown (55,482).

Industries—Extensive coal mines; radiator works; steel mills; agriculture.

Pollution—Waste from coal mines.

Railroads—Baltimore & Ohio traverses basin and follows stream from Mostollar to mouth; Pennsylvania traverses basin.

Utilization—Main stream used in times of drought for industrial supply at Johnstown. Quemahoning Creek, Shade Creek, Paint Creek and Bens Creek for domestic and industrial supply in the mining districts and at Johnstown; Fallen Timber Run for water supply at Hooversville. Main stream for water power by small grist mills in Somerset County. Small hydroelectric plant at Hollsopple.

STONY CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Cold Spring Township, northwestern Lebanon County; elevation 850.

Course—Southwesterly into Dauphin County to Susquehanna River.

Mouth—At Dauphin; elevation 321.

Length—Twenty-two and one-half miles.

Drainage Area—Contains 37.3 square miles in northwestern Lebanon and central Dauphin counties.

Topography—Narrow valley flanked by Third and Sharp mountains on northwest and Second Mountain on southeast; well wooded.

Channel—Sinuous, through shale and sandstone formations; rough, rocky beds.

Profile—Rate of fall per mile: from source to elevation 700, 8.5 miles, 17.6 feet; thence to mouth, 14 miles, 27.1 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Dauphin (545).

Industries—Agriculture; timber.

Railroads—Philadelphia & Reading follows stream from source to mouth.

Utilization—Water supply at Dauphin; industrial and railroad supply by Pennsylvania Railroad at Lucknow and Harrisburg.

STONY CREEK

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Blue Mountain, Upper Bern Township, Berks County; elevation 1,360.

Course—Northeasterly into Schuylkill County to Schuylkill River.

Mouth—Near Schuylkill-Berks county boundary; elevation 433.

Length—Four miles.

Drainage Area—Contains 3.7 square miles in northern Berks and southern Schuylkill counties.

Topography—Mountainous; narrow valley flanked with high, steep hills.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall, from source to mouth, 231.8 feet per mile.

Precipitation—Mean annual, 50 to 55 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Utilization—Main stream and Bear Creek for water supply at Auburn.

STONY FORK

Tributary to Babb Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Delmar Township, southwestern Tioga County.

Course—Southerly to Babb Creek.

Mouth—Two miles northeast of Lloyd.

Length—Twelve and one-half miles.

Drainage Area—Contains 44.4 square miles in southwestern Tioga County.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 30 to 40 inches.

ARTIFICIAL FEATURES

Towns—Delmar (38), Stonyfork (150), Draper (126).

Industries—Timber; agriculture.

SUGAR CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Armenia Township, western Bradford County.

Course—Easterly to North Branch Susquehanna River.

Mouth—At North Towanda.

Length—Twenty-eight miles.

Drainage Area—Contains 190.5 square miles in western Bradford and eastern Tioga counties.

Topography—Broken and hilly; valley flanked with rolling hills; rich agricultural lands.

Channel—Sinuous, through shale and sandstone formations; through glacial deposits.

Lakes—Mountain Lake (34 acres).

Precipitation—Mean annual, 30 to 40 inches.

ARTIFICIAL FEATURES

Towns—Columbia Cross Roads (175), Austinville (138), Sylvania (217), Troy (1,288), Burlington (142), North Towanda (750).

Industries—Machine shops; tanneries; agriculture.

Railroads—Northern Central traverses upper basin.

Utilization—Northern Central railroad supply at Troy. West Branch for water supply at Troy. Water power for grist mill at West Burlington and iron mill at Troy.

SUGAR CREEK

Tributary to French Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—Formed by junction of Middle Branch and East Branch, in Jackson Township, northwestern Venango County, near Cooperstown.

Course—Southerly to French Creek.

Mouth—At Sugar Creek; elevation 997.

Length—Seven and one-half miles.

Drainage Area—Contains 172.8 square miles in southern Crawford and northwestern Venango counties.

Topography—Rolling agricultural land with broad valleys; terminal moraine traverses basin.

Channel—Sinuous, through shale and glacial deposits.

Profile—Rate of fall, from Cooperstown, elevation 1,120, to mouth, 7 miles, 17.6 feet per mile.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Wyattville, May 1910.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Blackash (153), Guys Mills (280), Sugarlake (67), Diamond (80), Plum (70), Sunville (92), Cooperstown (181).

Industries—Agriculture.

SUGAR CREEK, EAST BRANCH

Tributary to Sugar Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Troy Township, southeastern Crawford County.

Course—Southwesterly into Venango County to Sugar Creek.

Mouth—Near Cooperstown.

Length—Twelve miles.

Drainage Area—Contains 48.6 square miles in southeastern Crawford and northern Venango counties.

Topography—Rolling hills and broad valleys; terminal moraine traverses basin.

Channel—Sinuous, through ponds and swamps of glacial origin.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Diamond (80), Wallaceville (40).

Industries—Agriculture.

Utilization—Water power for a few small mills.

SUGAR CREEK, MIDDLE BRANCH

Tributary to Sugar Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Troy Township, southeastern Crawford County.

Course—Southwesterly into Venango County to Sugar Creek.

Mouth—Near Cooperstown.

Length—Thirteen and one-half miles.

Drainage Area—Contains 43.7 square miles in southeastern Crawford and northwestern Venango counties.

Topography—Rolling hills and broad valleys; terminal moraine traverses basin.

Channel—Sinuous, through ponds and swamps of glacial origin.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Fauncetown (54), Blackash (153), Plum (70), Sunville (92).

Industries—Agriculture.

SUGAR (LITTLE) CREEK

Tributary to French Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In East Mead Township, central Crawford County.

Course—Southerly to French Creek.

Mouth—At Cochranton.

Length—Thirteen miles.

Drainage Area—Contains 45.3 square miles in southern Crawford County.

Topography—Rolling agricultural lands; basin within the glaciated region.

Channel—Sinuous, through glacial deposits, containing swamps and marshes.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Frenchtown (63), Pettis (47), Cochranton (695).

Industries—Agriculture.

SUGAR RUN

Tributary to Beaverdam Branch Frankstown Branch.

Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Allegheny Township, western Blair County; elevation 2,243.

Course—Easterly to Beaverdam Branch Frankstown Branch Juniata River.

Mouth—At Canan; elevation 1,043.

Length—Seven and one-half miles.

Drainage Area—Contains 9.5 square miles in eastern Cambria and western Blair counties.

Topography—Mountainous in upper basin; main valley broadens near mouth.

Channel—Sinuous, through shale and sandstone formations; in a ravine in upper course.

Profile—Rate of fall, from source to mouth, 160 feet per mile.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Agriculture.

Railroads—Pennsylvania traverses basin and follows stream in upper course.

Utilization—Proposed water supply for Altoona.

SUGAR RUN

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—Formed by junction of North and South branches in Corydon Township, northwestern McKean County.

Course—Northwesterly into Warren County to Allegheny River.

Mouth—At Cornplanter.

Length—Three miles.

Drainage Area—Contains 47.8 square miles in northwestern McKean and northeastern Warren counties.

Topography—Broken and hilly; main valley flanked with rolling hills; well wooded.

Channel—Sinuous, through shale and sandstone formations, containing some oil.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Cornplanter (143).

Industries—Timber; agriculture; oil.

SUGAR RUN CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Albany Township, southeastern Bradford County.

Course—Easterly to North Branch Susquehanna River.

Mouth—Near Sugar Run.

Length—Fifteen miles.

Drainage Area—Contains 54.4 square miles in southeastern Bradford and northwestern Wyoming counties.

Topography—Rough and hilly; narrow valley flanked with steep hills rounded by glacial action.

Channel—Sinuous, through shale and sandstone formations.

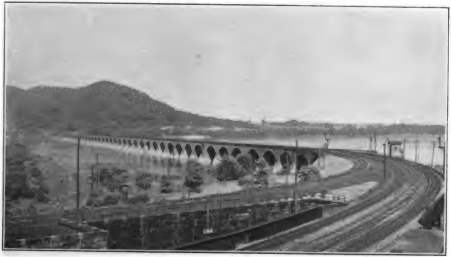
Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Evergreen (72), New Era (95), Hollenback (28), Sugar Run (231).

Industries—Agriculture.

Plate XVII



Susquehanna River at Rockville, above Harrisburg

SUSQUEHANNA RIVER

Tributary to Chesapeake Bay. Basin: Susquehanna.

NATURAL FEATURES

Source—Formed by junction of North and West branches at Northumberland, Northumberland County; elevation 430.

Course—Southerly to junction of Juniata River; thence southeasterly to Chesapeake Bay, crossing Pennsylvania-Maryland boundary at elevation 71. The stream forms the western boundary of Northumberland, Dauphin and Lancaster counties, and the eastern boundary of Union, Snyder, Juniata, Perry, Cumberland and York counties.

Mouth—At Havre de Grace, Md.; tidewater.

Length—Total, 128 miles; in Pa., 112 miles.

Drainage Area—Total, 27,400 square miles. In New York, 6,270 square miles; in Pennsylvania, 20,917 square miles, or 46.4 per cent of total area of state, embracing all of 21 and portions of 22 counties.

Topography—The basin lies in the three main topographic divisions of Pennsylvania: the northern portion in the well dissected Allegheny Plateau; the central portion in the rugged Allegheny Mountains; and the lower portion in the rolling Piedmont Plateau. Between Northumberland and Harrisburg the stream cuts through a series of parallel mountain ridges, forming picturesque water gaps.

Geology—The geological formations of this basin are extremely varied. The upper basin contains principally shale and sandstone outcrops. The eastern portion of the middle or mountainous region is rich in shale and sandstone, containing the noted anthracite deposit of the Wyoming Valley in the vicinity of Wilkes-Barre and Scranton, and the deposits in southern Luzerne, Carbon, Schuylkill and Northumberland counties; while the western mountainous region abounds in extensive limestone deposits in the valleys, containing some iron ore and many strong flowing springs. The lower or Piedmont Plateau region has extensive limestone valleys on Conodoguinet, Yellow Breeches, Swatara, Codorus, Big Chickies, Conestoga and Pequea creeks. The formations of the higher areas are principally slate, sandstone and trap rock.

Channel—From Northumberland to a point about 12 miles below Columbia the river is wide and shallow, averaging about a mile in width, and contains many rocky islands, some of which are cultivated. About 23 miles above the Pennsylvania-Maryland boundary the stream enters a gorge, where it becomes narrow and rapid, and on either shore is for the most part flanked by rocky bluffs surmounted by a table-land 100 to 500 feet above the water.

Profile—Rate of fall per mile: from Northumberland to Safe Harbor, 95 miles, 2.8 feet; thence to McCall Ferry Dam (crest), 7.5 miles, 0.4 feet; thence from base of dam, elevation 115, to state boundary, 9.5 miles, 4.6 feet. The following table gives elevations at various points with distances above Pennsylvania-Maryland boundary:

Location	Distance above Pa.-Md. Boundary	Elevation above Sea Level
	Miles	Feet
Pennsylvania-Maryland boundary,	0.0	71
McCall Ferry Dam (50 feet high),	9.5	*165
Safe Harbor,	17.0	[illegible]
Turkey Hill,	22.0	[illegible]
Columbia,	28.0	[illegible]
York Haven,	41.5	[illegible]
Harrisburg,	56.5	[illegible]
Clarks Ferry Dam,	72.0	[illegible]
Liverpool,	87.0	[illegible]
Dalmatia,	94.5	[illegible]
Selinsgrove,	105.5	[illegible]
Sunbury,	111.0	[illegible]
Northumberland,	112.0	[illegible]

*Crest.

Lakes—Many lakes of glacial origin are found in the basin of the North Branch, several having areas of 200 acres and over.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Harrisburg, January 1891. At McCall Ferry, May 1902; discontinued December 1909.

Precipitation—Mean annual, 30 to 55 inches.

NATURAL RESOURCES

Agriculture—This industry is highly developed, especially in the Piedmont Plateau, which includes the Cumberland and Lebanon valleys and Lancaster and York counties, all noted for their rich farm lands.

Minerals—Anthracite deposits are located in Lackawanna, Luzerne, Carbon, Schuylkill, Columbia, Northumberland and Dauphin counties; limestone in basins of upper West Branch, Juniata River and several basins of Piedmont Plateau country; small deposits of iron ore generally in limestone regions.

Timber—The heavy forest cover is located in upper basin and mountainous region, there being forest reserves in the lake regions.

Water Power—The largest hydroelectric plants in the state are located at York Haven and McCall Ferry on the lower Susquehanna. There are numerous smaller plants on the lower tributaries, including Juniata River and Conodoguinet, Yellow Breeches and Conestoga creeks.

ARTIFICIAL FEATURES

Towns—Williamsport (31,860), Scranton (129,867), Wilkes-Barre (67,105), Sunbury (13,770), Harrisburg (64,186), Steelton (14,246), Middletown (5,374), Columbia (11,454), Lancaster (47,227), York (44,750).

Industries—Coal mines; timber; agriculture; quarries; steel works; textile mills; railroad shops.

Pollution—Waste from coal mines.

Railroads—Follow main stream from source to Pennsylvania-Maryland boundary and follow principal tributaries. Many traverse basin.

Utilization—Water supply at Harrisburg, Steelton and Columbia. Industrial and railroad supply at many places. Hydroelectric plants at York Haven and McCall Ferry. Stream is navigable for small flat-bottomed boats and ferries in certain localities. The old Pennsylvania Canal followed main stream from junction of North and West branches to Columbia, where the Susquehanna and Tidewater Canal began and followed stream to tidewater.

SUSQUEHANNA RIVER, NORTH BRANCH

Tributary to Susquehanna River. Basin: Susquehanna.

NATURAL FEATURES

Source—In Otsego Lake, Catskill Mountains, southeastern New York.

Course—Southwesterly, entering Pennsylvania in Susquehanna County, returning to New York after forming a loop 16 miles long, and flowing westerly, re-entering Pennsylvania near Sayre, Bradford County; thence southeasterly through Wyoming County to Pittston, Luzerne County; thence southwesterly, traversing Columbia, Montour and Northumberland counties, to join West Branch and form Susquehanna River.

Mouth—At Northumberland; elevation 430.

Length—Total, 316 miles. From source to Pennsylvania-New York boundary, above Sayre, 150.5 miles; thence to mouth, 165.5 miles.

Drainage Area—Total, 11,277 square miles; in Pa., 5,007 square miles, embracing portions of Potter, Tioga, Bradford, Carbon, Susquehanna, Wayne, Lackawanna, Wyoming, Sullivan, Lycoming, Columbia, Luzerne, Schuylkill, Montour and Northumberland counties.

Topography—In New York, rolling and rather broken country. In Pennsylvania, stream flows through mountainous regions and is confined to a narrow main valley between ridges below Pittston, above which point to state boundary the basin is traversed with narrow, parallel ranges set at right angles to main course of stream. Basin abounds in swamps, lakes and ponds of glacial origin.

Geology—Shale and sandstone formations, containing rich deposits of anthracite in Wyoming Valley, embracing portions of Lackawanna and Luzerne counties.

Channel—Tortuous in many places, through gravel, sand and boulders between high banks; contains many islands; cuts through mountain ranges in several places forming picturesque passes.

Profile—Rate of fall, from state boundary, above Sayre, to mouth, 1.9 feet per mile. The following table gives elevations at various points with distances above mouth:

Location	Distance above Mouth	Elevation above Sea Level
	Miles	Feet
Mouth,	0.0	430
Danville,	12.0	448
Catawissa,	21.0	461
Berwick,	36.0	473
Nanticoke,	56.5	513
Wilkes-Barre,	64.5	528
Falls,	84.0	573
Pennsylvania-New York boundary (above Sayre),	165.5	742

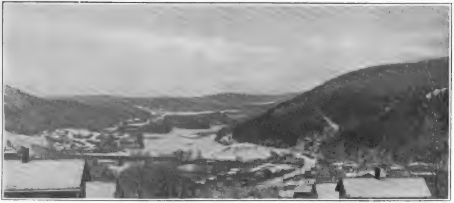
Lakes—Basin abounds in swamps, lakes and ponds of glacial origin, principally in northeastern section. The following lakes are not included in descriptions of tributaries: Minklers Pond (45.9 acres), Black Pond (26.7 acres), Sharpes Pond (45.8 acres), Nigger Pond (65.4 acres), Chamberlin Pond (47.6 acres), Lower Dam (35.8 acres), Osterhout Pond (30.4 acres), Browns Pond (65.6 acres), Cummings Pond (43.8 acres).

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Conklin, N. Y., November 1912. At Binghamton, N. Y., July 1901; discontinued December 1912. At Towanda, October 1892. At Wilkes-Barre, March 1899. At Danville, March 1899.

Precipitation—Mean annual, 30 to 50 inches.

Plate XVIII



North Branch Susquehanna River at Shickshinny

NATURAL RESOURCES

Agriculture—Developed principally in northern part of basin in Pennsylvania and along bottom lands of main valley.

Minerals—Anthracite is found in great abundance in the Wyoming Valley between Forest City, on Lackawanna River, and Nanticoke. Another rich coal field borders this basin on the south in Schuylkill and Luzerne counties. These deposits are of national importance and form one of the principal industries of the state.

Timber—Valuable timber areas are confined to upper basin and on the mountain ridges. There are some virgin forests in the lake regions.

Water Power—There are no extensive power developments, principally on account of slight fall, poor storage sites and proximity of coal fields.

ARTIFICIAL FEATURES

Towns—Susquehanna (3,478), Sayre (6,426), Towanda (4,281), Montrose (1,914), Tunkhannock (1,598), Carbondale (17,040), Scranton (129,867), Pittston (16,267), West Pittston (6,848), Wilkes-Barre (67,105), Kingston (6,449), Plymouth (16,996), Nanticoke (18,877), Berwick (5,357), Bloomsburg (7,413), Danville (7,517), North umberland (3,517).

Industries—Numerous coal mines; brick works; quarries; paper mills; tanneries; agriculture.

Pollution—Waste from coal mines forming deposits of culm in channel which obstruct flow and injure adjoining agricultural lands during freshets.

Railroads—Lehigh Valley follows stream from New York boundary to Wilkes-Barre; Pennsylvania from Wilkes-Barre to mouth; Delaware, Lackawanna & Western from Pittston to mouth. Many traverse basin.

Utilization—Water supply for several towns, including Sayre, Hallstead, Great Bend, Laceyville, Wilkes-Barre (auxiliary) and Danville; industrial supply at many places. Water power developed on main stream at Lanesboro and Susquehanna.

SUSQUEHANNA RIVER, WEST BRANCH

Tributary to Susquehanna River. Basin: Susquehanna.

NATURAL FEATURES

Source—In Carroll Township, northwestern Cambria County; elevation 1,990.

Course—Northerly into Clearfield County; thence northeasterly, between Center County, on the southeast, and Clearfield and Clinton counties, on the northwest, into Clinton County; thence southeasterly, by a circuitous route, through Lycoming county, and southerly, between Northumberland and Union counties, to join North Branch and form Susquehanna River.

Mouth—At Northumberland; elevation 430.

Length—Two hundred and twenty-eight miles.

Drainage Area—Contains 6,913 square miles, embracing portions of Cambria, Clearfield, Center, Elk, Cameron, Potter, Clinton, Columbia, Tioga, Indiana, Jefferson, Lycoming, Bradford, McKean, Sullivan, Montour, Northumberland, Union and Wyoming counties.

Topography—Basin occupies high table-lands of Allegheny Plateau region, and a portion of Allegheny Mountain region in lower course of main stream. A small portion in the northeast lies within glaciated area. Headwaters lie in a rich, bituminous coal area in Clearfield and Cambria counties, being thickly settled. From Clearfield to Lock Haven country is rough and rugged and sparsely settled, hills being well wooded; from Lock Haven to mouth, well populated along main stream; agricultural valleys flanked with rugged mountains, covered with second growth timber.

Geology—The formations in basin north of Allegheny Mountains are principally shale and sandstone, containing rich deposits of bituminous coal in western part and in Tioga County to north. The valley of Bald Eagle Creek and main valley from Lock Haven to Northumberland is rich in limestone. There are also some deposits of iron ore.

Channel—Tortuous in upper course, having gravel and sand bed with rocky ledges in places. From junction of Sinnemahoning Creek to Bald Eagle Creek main valley is narrow, flanked with high, steep hills; very little bottom land, except near mouths of tributaries. From Lock Haven to near Muncy river winds through a wide cultivated valley, flanked with steep, wooded ridges. Southwest of Muncy the river crosses a belt of deeply eroded country, full of conical hills.

Profile—Rate of fall per mile: from source to Barnesboro, elevation 1,440, 7.5 miles, 73.3 feet; thence to Curwensville, elevation 1,128, 48.5 miles, 6.4 feet; thence to mouth, 172 miles, 4.1 feet.

Lakes—The northeastern portion of basin abounds in lakes and swamps of glacial origin.

Springs—In the basin of Spring Creek, a tributary of Bald Eagle Creek, in Center County, there are many limestone springs that maintain a strong flow, even in times of drought.

Plate XIX

West Branch Susquehanna River at Williamsport

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Bower, October 1913. At Renovo, January 1908. At Allenwood, March 1899; discontinued April 1902.

Precipitation—Mean annual: northern portion of basin, 30 to 50 inches; southern portion, 35 to 50 inches.

NATURAL RESOURCES

Agriculture—The broad valleys and bottom lands along the streams are fertile and extensively developed, principally along main stream and in Center County.

Minerals—Bituminous coal is found in Cambria and Clearfield counties and to some extent in Tioga County. Iron ore is deposited in small quantities in basin southwest of Lewisburg and Sunbury.

Timber—The most valuable timber areas are in basin of Pine Creek, although other parts of northern areas are covered on the ridges and steep slopes.

Water Power—No water power is being developed to any extent on main stream, and available sites are not commercially valuable, principally on account of location of railroads.

ARTIFICIAL FEATURES

Towns—Curwensville (2,549), Clearfield (6,851), Renovo (4,621), Bellefonte (4,145), Lock Haven (7,772), Emporium (2,916), Jersey Shore (5,381), Williamsport (31,860). Muncy (1,904), Watsontown (1,950), Milton (7,460), Lewisburg (3,081), Northumberland (3,517).

Industries—Coal mines; iron ore mines; stone quarries; clay banks; timber; paper mills; agriculture.

Pollution—Waste from coal mines and paper mills.

Railroads—Pennsylvania, New York Central & Hudson River and Philadelphia & Reading traverse basin and follow stream; several others traverse basin.

Utilization—Main stream for auxiliary water supply at Lewisburg and Muncy; for industrial supply at Lock Haven; for Pennsylvania Railroad water supply at Northumberland and Renovo. Tributaries supply many towns. Main stream for small water power plant at Williamsport and for small mills at Garmans Mills. A series of 4 dams, at Queens Run, Williamsport, Muncy and Lewisburg respectively, together with a system of canals, have made the river navigable between these points and the mouth. The canal is now out of use.

SWAMP (EAST) CREEK

Tributary to Perkiomen Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In Lower Milford Township, southeastern Lehigh County; elevation 740.

Course—Southerly, through Bucks County, into Montgomery County to Perkiomen Creek.

Mouth—At Perkiomenville; elevation 176.

Length—Sixteen miles.

Drainage Area—Contains 49.0 square miles, embracing portions of Lehigh, Bucks and Montgomery counties.

Topography—Broken and hilly; upper basin, rolling agricultural country; main valley narrows in lower basin and is flanked with steep hills.

Channel—Sinuous, through red shale and sandstone formations, containing intrusions of trap rock.

Profile—Rate of fall per mile: from source to elevation 600, 1 mile, 140 feet; thence to elevation 500, 2.5 miles, 40 feet; thence to elevation 400, 6 miles, 16.7 feet; thence to Sumneytown, elevation 200, 4.5 miles, 44.4 feet; thence to mouth, 2 miles, 12 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Milford Square (250), Trumbauersville (611), Sumneytown (300), Perkiomenville (368).

Industries—Agriculture.

Utilization—Water power by a hydroelectric plant at Sumneytown.

SWAMP (WEST) CREEK

Tributary to Perkiomen Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In District Township, eastern Berks County; elevation 960.

Course—Southeasterly into Montgomery County to Perkiomen Creek.

Mouth—One mile southeast of Zieglerville; elevation 135.

Length—Eighteen and one-half miles.

Drainage Area—Contains 54.7 square miles in eastern Berks and northwestern Montgomery counties.

Topography—Basin lies within Piedmont Plateau. High, rounded hills in headwaters; below Boyertown basin is broad, rolling agricultural country.

Channel—Sinuous, through gneiss formation in headwaters; thence below Boyertown through red shale and sandstone formations containing intrusions of trap rock.

Profile—Rate of fall per mile: from source to Bechtelsville, elevation 400, 3 miles, 186.7 feet; thence to elevation 300, 3 miles, 33.3 feet; thence to mouth, 12.5 miles, 13.2 feet.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Bechtelsville (417), New Berlinville (370), Boyertown (2,433), Gilbertsville (453), New Hanover (406), Zieglerville (482).

Industries—Cigar factories; foundry; agriculture.

Railroads—Philadelphia & Reading traverses basin.

SWATARA CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Broad Mountain, Foster Township, western central Schuylkill County; elevation 1,660.

Course—Southwesterly, through Lebanon and Dauphin counties, to Susquehanna River.

Mouth—At Middletown; elevation 268.

Length—Sixty-nine miles.

Drainage Area—Contains 567.4 square miles, embracing portions of Schuylkill, Berks, Lebanon and Dauphin counties.

Topography—Headwaters in Allegheny Mountains, where streams flow in narrow valleys between parallel ridges which are well wooded; main valley cuts through several ridges including Blue Mountain, forming Swatara Gap, and enters Piedmont Plateau region with broad valleys and rolling hills, highly cultivated.

Geology—Shale and limestone formations in the mountains, where rich deposits of anthracite are found. In the Piedmont Plateau, valley is eroded in shales, limestone and sandstone areas.

Channel—Sinuous, with rough beds and steep banks in headwaters; becomes tortuous in middle and lower basin and bordered with alluvial flood plains and gently sloping banks.

Profile—Rate of fall per mile: from source to elevation 1,300, 2 miles, 180 feet; thence to elevation 1,000, 0.5 mile, 600 feet; thence to elevation 800, 2.5 miles, 80 feet; thence to elevation 700, 5 miles, 20 feet; thence to elevation 600, 2 miles, 50 feet; thence to Pine Grove, elevation 500, 4 miles, 25 feet; thence to mouth, 53 miles, 4.4 feet.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Jonestown, above junction of Little Swatara Creek, November 1910.

Precipitation—Mean annual, 35 to 55 inches.

ARTIFICIAL FEATURES

Towns—Lebanon (19,240), Annville (1,750), Palmyra (1,950), Tremont (2,067), Pine Grove (1,352), Jonestown (603), Hummelstown (2,128), Royalton (1,033), Middletown (5,374).

Industries—Extensive coal mines; blast furnaces; steel works; chocolate factory; quarries; agriculture.

Pollution—Culm from coal industries, principally in upper basin, above junction of Little Swatara Creek.

Railroads—Philadelphia & Reading traverses basin and follows stream in upper and lower courses; Cornwall & Lebanon traverses basin.

Utilization—Water supply at Jonestown, Hummelstown, Middletown, environs of Lebanon, and Annville. Tributaries for several mining towns, including Tremont, Blackwood and Pine Grove; also at Royalton and Middletown. Water power at Hummelstown and Middletown, and by grist mills at other points. The old Union Canal extended from mouth to Lebanon, and a feeder extended up creek to Pine Grove. Large storage reservoirs above Jonestown and Pine Grove were destroyed by freshets. Culm recovery operations at Murray and Inwood.

SWATARA CREEK, EAST BRANCH

Tributary to Swatara Creek. Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In Wayne Township, southern Schuylkill County; elevation 780.

Course—Southwesterly to Swatara Creek.

Mouth—Near Pine Grove; elevation 497.

Length—Eleven miles.

Drainage Area—Contains 35.0 square miles in southern Schuylkill County.

Topography—Tributaries from south head in Blue Mountain; main stream flows parallel to the ridge through a broad valley with rolling hills.

Channel—Sinuous, through shale and sandstone formations; bordered with bottom lands.

Profile—Rate of fall, from elevation 700 to mouth, 10.5 miles, 19.3 feet per mile.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Moyers (65), Rock (160).

Industries—Agriculture; timber.

Railroads—Philadelphia & Reading traverses basin and follows stream from Rock to mouth.

SWATARA (LITTLE) CREEK

Tributary to Swatara Creek. Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—On Bethel-Upper Tulpehocken township boundary, northwestern Berks County.

Course—Southwesterly into Lebanon County to Swatara Creek.

Mouth—At Jonestown; elevation 390.

Length—Twenty-three and one-half miles.

Drainage Area—Contains 96.4 square miles in northwestern Berks and eastern Lebanon counties.

Topography—Headwater streams from the north head in Blue Mountain; main basin lies in the fertile Lebanon Valley, which is included in the Piedmont Plateau.

Channel—Sinuous, through broad bottom lands, bordered with rolling hills.

Profile—Rate of fall, from elevation 500 to mouth, 18 miles, 6.1 feet per mile.

Precipitation—Mean annual, 45 to 55 inches.

ARTIFICIAL FEATURES

Towns—Rehrersburg (649), Bethel (675), Fredericksburg (900), Jonestown (603).

Industries—Agriculture.

Utilization—Water power by small grist mills.

TANGASCOOTACK CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Beech Creek Township, southern Clinton County.

Course—Northeasterly to West Branch Susquehanna River.

Mouth—Two miles west of Farrandsville.

Length—Nine miles.

Drainage Area—Contains 37.0 square miles in southern Clinton County.

Topography—Broken and hilly; valleys flanked with rolling hills.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Coal mines; agriculture.

Railroads—Pennsylvania traverses basin; Scootac follows stream in upper course.

TENMILE CREEK

Tributary to Monongahela River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In South Franklin Township, southern central Washington County; elevation 1,250.

Course—Southeasterly to Monongahela River, forming Washington-Greene county boundary for last 7.5 miles.

Mouth—At Millsboro; elevation 747.1.

Length—Thirty-four and one-half miles.

Drainage Area—Contains 338.2 square miles in southern Washington and northern Greene counties.

Topography—Hilly; main valley is wide and flat in places, flanked with steep hills, principally on south side of basin.

Geology—Shale, sandstone and limestone formations; coal, oil and gas are found in large quantities.

Channel—Tortuous, through a broad valley.

Profile—Rate of fall per mile: from elevation 1,100 to Prosperity, elevation 1,000, 5.5 miles, 18.2 feet; thence to mouth, 28 miles, 9.0 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Prosperity (205), Marianna (1,363), Clarksville (208), Rogersville (325), Waynesburg (3,545), Jefferson (357), Millsboro (650).

Industries—Coal; oil; gas; agriculture.

Railroads—Pennsylvania and Waynesburg & Washington traverse basin.

Utilization—Industrial and domestic supply at Marianna. South Fork for water supply at Waynesburg.

TENMILE CREEK, SOUTH FORK

Tributary to Tenmile Creek. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Richhill Township, western Greene County; elevation 1,300.

Course—Easterly to Waynesburg; thence northeasterly to Tenmile Creek.

Mouth—At Clarksville; elevation 785.

Length—Thirty-four miles.

Drainage Area—Contains 199.3 square miles in northern Greene County.

Topography—Hilly; main valley in upper course is narrow, flanked with steep hills, widening in the vicinity of Rogersville, Waynesburg and Jefferson.

Channel—Sinuous, in upper course, becoming tortuous in middle and lower courses; carved in shale, sandstone and limestone; coal and gas are found in large quantities.

Profile—Rate of fall per mile: from elevations 1,100 to 1,000, 2 miles, 50 feet; thence to elevation 900, 19.5 miles, 5.1 feet; thence to mouth, 11 miles, 10.5 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Harveys (213), Rogersville (325), Waynesburg (3,545), Jefferson (357), Clarksville (208).

Industries—Coal; gas; agriculture.

Railroads—Waynesburg & Washington traverses basin.

Utilization—Water supply at Waynesburg. Water power for a small mill.

TENMILE (LITTLE) CREEK

Tributary to Tenmile Creek. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Amwell Township, central Washington County; elevation 1,270.

Course—Southeasterly to Tenmile Creek.

Mouth—Near Bissell; elevation 897.

Length—Twelve and one-half miles.

Drainage Area—Contains 27.4 square miles in southern Washington County.

Topography—Hilly; valleys have small flood plains in places and are flanked with hills of varying slope.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from elevations 1,100 to 1,000, 2 miles, 50 feet; thence to mouth, 9 miles, 11.4 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Lonepine (200).

Industries—Coal; gas; agriculture.

TEXAS RUN (or ZIMMERMAN RUN)

Tributary to Little Pine Creek.
Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Liberty Township, southeastern Tioga County.

Course—Southwesterly into Lycoming County; thence southerly to Little Pine Creek.

Mouth—Four miles northeast of English Center.

Length—Fourteen miles.

Drainage Area—Contains 42.6 square miles in southeastern Tioga and northern central Lycoming counties.

Topography—Rough and hilly, with headwaters in glaciated area; narrow valleys flanked with steep, well wooded hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Nauvoo (216), Oregon Hill (41).

Industries—Timber; agriculture.

Utilization—Water power for lumber mill.

THOMPSON RUN

Tributary to Oil Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Rome Township, eastern Crawford County.

Course—Southwesterly to Oil Creek.

Mouth—At Hydetown.

Length—Eleven miles.

Drainage Area—Contains 33.3 square miles in eastern Crawford County.

Topography—Rolling hills and broad valleys; terminal moraine traverses basin parallel to main valley.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Vrooman (55), Shelmadine Springs (45), Hydetown (413).

Industries—Agriculture.

THORN CREEK

Tributary to Connoquenessing Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Summit Township, eastern Butler County; elevation 1,290.

Course—Southerly to West Saxonburg; thence northwesterly to Connoquenessing Creek.

Mouth—Near Renfrew; elevation 955.

Length—Fifteen miles.

Drainage Area—Contains 42.3 square miles in southern Butler County.

Topography—Rolling hills; main valley flanked with steep hills in lower course.

Channel—Sinuous, through shale and sandstone formations, containing gas.

Profile—Rate of fall, from source to mouth, 22.3 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Jefferson Center (50), Saxonburg (345), Maharg (53).

Industries—Agriculture.

Railroads—Bessemer & Lake Erie follows stream from West Saxonburg to mouth.

Utilization—Water power for small mills at Saxonburg.

THREE SPRINGS CREEK

Tributary to Aughwick Creek. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In Cass Township, southern central Huntingdon County.

Course—Southeasterly, by a circuitous route, to Aughwick Creek.

Mouth—At Pogue.

Length—Twelve miles.

Drainage Area—Contains 36.5 square miles in southern Huntingdon County.

Topography—Mountainous; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Saltillo (410), Three Springs (248).

Industries—Coal mines; agriculture.

Railroads—East Broad Top & Coal Co. follows stream from Saltillo to mouth.

Utilization—Water power by small grist mill.

TIOGA RIVER

Tributary to Chemung River.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Armenia Township, western Bradford County.

Course—Southwesterly into Tioga County to near Blossburg; thence northerly into New York to Chemung River.

Mouth—In New York.

Length—In Pa., 45 miles.

Drainage Area—In Pa., 689.5 square miles in northeastern Potter, northern Tioga and western Bradford counties.

Topography—Rough and hilly, rounded somewhat by glacial action.

Geology—Shale and sandstone formations, containing coal in upper basin.

Channel—Sinuous, through glacial drift and sandstone rocks; bordered by wide alluvial flood plains.

Profile—Rate of fall per mile: from junction of Elk Run, elevation 1,160, to elevation 1,140, 0.5 mile, 40 feet; thence to elevation 1,120, 4.5 miles, 4.4 feet; thence to elevation 1,100, 0.5 mile, 40 feet; thence to elevation 1,000, 10.5 miles, 9.5 feet.

Precipitation—Mean annual, 30 to 40 inches.

ARTIFICIAL FEATURES

Towns—Westfield (1,207), Knoxville (840), Osceola (591), Elkland (1,175), Nelson (448), Lawrenceville (549), Blossburg (2,303), Mansfield (1,645), Tioga (533), Covington (340).

Industries—Coal mines; wood works; tanneries; glass works; quarries; clay banks; agriculture.

Railroads—Erie and New York Central & Hudson River traverse basin and follow stream from Blossburg to state boundary; Buffalo & Susquehanna traverses basin.

Utilization—Main stream for Erie Railroad supply at Tioga Junction. A tributary of Tioga River for water supply at Tioga; Taylor Run and Bellman Run, a tributary of Johnson Creek, at Blossburg; a tributary of Lambs Creek at Mansfield and Lambs Creek. Canoe Camp Creek for water power by grist mill at Canoe Camp.

TIONESTA CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Watson Township, southern Warren County.

Course—Northeasterly to Clarendon; thence southeasterly into Forest County to Lynch; thence southwesterly to Allegheny River.

Mouth—At Tionesta.

Length—Fifty-eight miles.

Drainage Area—Contains 485.4 square miles, embracing portions of Warren, McKean, Elk, Forest and Clarion counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills. Densely wooded country, containing large tracts of virgin timber in Warren and Forest counties.

Geology—Shale and sandstone formations, containing some oil and gas.

Channel—Sinuous, bordered with steep rugged banks.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Butler Bridge, 2 miles above Nebraska, July 1912.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Clarendon (933), Tiona (296), Sheffield (1,550), Ludlow (507), Brookston (300), Kellettville (500), Tionesta (803).

Industries—Oil and gas fields; tanneries; timber; agriculture.

Pollution—Waste from tanneries.

Railroads—Pennsylvania traverses basin and follows stream from Clarendon to Sheffield; Sheffield & Tionesta follows stream from Sheffield to Nebraska; Tionesta Valley traverses basin and follows stream in upper course; Hickory Valley traverses basin.

Utilization—Industrial supply at Clarendon. Water power by a few sawmills and grist mills. A large power development near the mouth has been proposed.

TIONESTA CREEK, EAST BRANCH

Tributary to South Branch Tionesta Creek.

Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—Formed by junction of Wind Run and West Run, in Wetmore Township, southwestern McKean County.

Course—Northwesterly to a point 0.5 mile east of McKean-Warren county boundary; thence southwesterly into Warren County to South Branch Tionesta Creek.

Mouth—One mile southeast of Barnes.

Length—Ten miles.

Drainage Area—Contains 38.7 square miles in southwestern McKean and southeastern Warren counties.

Topography—Rough and hilly; narrow valley flanked with steep hills; well wooded country with virgin forests in lower basin.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Timber; oil; agriculture.

Utilization—Wind Run for water supply at James City.

TIONESTA CREEK, SOUTH BRANCH

Tributary to Tionesta Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Highland Township, northwestern Elk County.

Course—Northwesterly, through Forest County, into Warren County to Tionesta Creek.

Mouth—Near Barnes.

Length—Fifteen miles.

Drainage Area—Contains 86.0 square miles, embracing portions of Elk, McKean, Forest and Warren counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded; some virgin timber.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Brookston (300), Barnes (234).

Industries—Timber; agriculture.

Railroads—Tionesta Valley traverses basin and follows stream from headwaters to mouth; Elk & Highland traverses basin.

Utilization—Bogus Creek for industrial supply at Brookston.

TIPTON RUN

Tributary to Little Juniata River. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Snyder Township, northern Blair County.

Course—Southeasterly to Little Juniata River.

Mouth—Near Tipton.

Length—Eight miles.

Drainage Area—Contains 17.8 square miles in northeastern Cambria and northern Blair counties.

Topography—Mountainous; narrow valley flanked with steep, high hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Tipton (173).

Industries—Agriculture.

Railroads—Pennsylvania follows stream in lower course.

Utilization—Main stream and Bells Gap Run, a tributary of Little Juniata River, for industrial supply at Juniata. Water power for a few small grist mills.

TOBY CREEK

Tributary to Clarion River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—Formed by junction of Little Toby Creek and Mill Creek, in Paint Township, northern central Clarion County.

Course—Southwesterly to Clarion River.

Mouth—Opposite Clarion; elevation 1,042.

Length—Three and one-half miles.

Drainage Area—Contains 36.6 square miles in northeastern Clarion County.

Topography—Rough and hilly; narrow valley flanked with steep, densely wooded hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Crown (73), Scotch Hill (103), Lucinda (250).

Industries—Oil; gas; coal; agriculture.

Railroads—Baltimore & Ohio traverses western edge of basin.

TOBY CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Dallas Township, northern central Luzerne County; elevation 1,340.

Course—Southeasterly to Luzerne; thence southwesterly to North Branch Susquehanna River.

Mouth—One mile southwest of Kingston; elevation 526.

Length—Eleven miles.

Drainage Area—Contains 37.4 square miles in northern central Luzerne County.

Topography—Rough and hilly country in glaciated area, containing swamps, lakes and ponds; main stream in a gorge between Trucksville and Luzerne; thence to mouth through wide bottom lands.

Channel—Sinuous, through shale and sandstone formations, containing coal deposits in lower course.

Profile—Rate of fall per mile: from source to elevation 600, 8 miles, 92.5 feet; thence to mouth, 3 miles, 24.7 feet.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Dallas (576), Trucksville (231), Pringle (420), Luzerne (5,426), Dorranceton (4,046), Kingston (6,449), Edwardsville (8,407).

Industries—Agriculture; coal mines.

Pollution—Waste from coal mines in lower course.

Railroads—Lehigh Valley traverses basin and follows stream from source to mouth; Delaware, Lackawanna & Western follows stream in lower course and traverses basin.

Utilization—Huntsville Creek by Spring Brook Water Supply Co. Main stream for water power by small mills.

TOBY (LITTLE) CREEK

Tributary to Toby Creek. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Farmington Township, northeastern Clarion County.

Course—Southwesterly to join Mill Creek and form Toby Creek.

Mouth—Four miles north of Clarion.

Length—Twelve miles.

Drainage Area—Contains 26.4 square miles in northeastern Clarion County.

Topography—Rough and hilly; narrow valley flanked with steep, densely wooded hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Crown (73), Scotch Hill (103).

Industries—Coal; oil; gas; agriculture.

Railroads—Baltimore & Ohio traverses northwestern edge of basin.

TOBY (LITTLE) CREEK

Tributary to Clarion River. Sub-basin: Middle Allegheny.

NATURAL FEATURES

Source—In Fox Township, southern Elk County.

Course—Southwesterly into Jefferson County; thence northwesterly, re-entering Elk County, to Clarion River.

Mouth—At Carman Siding, 5 miles southwest of Ridgway.

Length—Twenty-five and one-half miles.

Drainage Area—Contains 124.6 square miles, embracing portions of Elk, Jefferson and Clearfield counties.

Topography—Rough and hilly; narrow valleys flanked with ste hills; partly wooded.

Channel—Sinuous, through shale and sandstone formations, con taining coal deposits.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Elbon (271), Brockport (314), Cartwright (776), Crenshaw (368), Coal Glen (400), Brockwayville (1,898).

Industries—Coal mines; timber; oil; gas; glass works; agriculture.

Pollution—Waste from coal mines.

Railroads—Erie traverses basin and follows stream in upper course; Pittsburgh, Shawmut & Northern traverses basin and follows stream in middle course; Buffalo, Rochester & Pittsburgh and Pennsylvania traverse basin and follow stream in lower course.

Utilization—Whetstone Run for water supply at Brockwayville; Rattlesnake Run for water supply at Brockwayville and Crenshaw; Brandy Camp Run for industrial supply at Elbon.

TOBYHANNA CREEK

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Coolbaugh Township, northern Monroe County.

Course—Southwesterly to Carbon-Monroe county boundary; thence northwesterly 3.5 miles, being Carbon-Monroe county boundary to Lehigh River.

Mouth—Opposite Stoddartsville.

Length—Twenty-three miles.

Drainage Area—Contains 139.1 square miles in northwestern Monroe and northeastern Carbon counties.

Topography—Broken, mountainous country, containing lakes and swamps of glacial origin; basin traversed by terminal moraine.

Channel—Sinuous, through sandstone formation and glacial drift.

Lakes—Mountain Ice Co. Dam No. 1 (55.9 acres), Mountain Ice Co. Dam No. 2 (162.1 acres), Wernertown Dam (128.5 acres), Pocono Lake (510.3 acres).

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Tobyhanna (610), Blakeslee (128).

Industries—Silk mill; agriculture; timber; ice harvesting; summer resorts; U. S. Field Artillery practice grounds.

Railroads—Wilkes-Barre & Eastern and Delaware, Lackawanna & Western traverse basin.

TOHICKON CREEK

Tributary to Delaware River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Springfield Township, northwestern Bucks County; elevation 638.

Course—Southeasterly to Delaware River.

Mouth—At Point Pleasant; elevation 73.

Length—Twenty-eight miles.

Drainage Area—Contains 112.1 square miles in northern Bucks County.

Topography—Rolling agricultural country, extensively developed; broad valley with gently sloping sides; basin in Piedmont Plateau.

Channel—Sinuous, through shale and sandstone formations, containing intrusions of trap rock; in a ravine for last 4 miles.

Profile—Rate of fall per mile: from source to California, elevation 500, 3 miles, 46 feet; thence to mouth, 25 miles, 17.1 feet.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Point Pleasant, September 1883; discontinued December 1913.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Richlandtown (562), Quakertown (3,801), Ottsville (268), Bedminster (300), Pipersville (200), Point Pleasant (321).

Industries—Cigar and cigar box factories; planing mills; knitting and silk mills; shoe and harness factory; agriculture.

Railroads—Philadelphia & Reading traverses upper basin.

Utilization—Water supply at Quakertown. Water power by grist mills. Small tributary of Threemile Run for water supply at Sellersville.

TOMS CREEK

Tributary to Monocacy River. Basin: Potomac.

NATURAL FEATURES

Source—In Hamiltonban Township, southwestern Adams County; elevation 1,420.

Course—Southeasterly into Maryland to Monocacy River.

Mouth—Five miles southeast of Emmittsburg, Md.; elevation 325.

Length—In Pa., 10.5 miles.

Drainage Area—In Pa., 59.4 square miles in southwestern Adams and southeastern Franklin counties.

Topography—Mountainous; from Iron Springs to state boundary, main valley is flanked with steep hills on west, while on the east the country is flat, except for a ridge that stretches parallel to stream for about 2 miles and terminates in McKee Knob at north.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall per mile: from source to elevation 600, 6.5 miles, 126.2 feet; thence to state boundary, elevation 435, 4 miles, 41.2 feet.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Fountain Dale (172), Fairfield (373), Iron Springs (90).

Industries—Agriculture.

Railroads—Western Maryland traverses basin.

TONOLOWAY (LITTLE) CREEK

Tributary to Great Tonoloway Creek. Basin: Potoma

NATURAL FEATURES

Source—In Brush Creek Township, western Fulton County.

Course—Southeasterly and southerly to Great Tonoloway Creek.

Mouth—Near Dogtown.

Length—Sixteen and one-half miles.

Drainage Area—Contains 50.9 square miles in southern central Fulton County.

Topography—Mountainous; narrow valleys with steep slopes.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sipes Mill (75), Needmore (81), Dott (40), Covalt (65).

Industries—Agriculture; timber.

TOWANDA CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Union Township, southeastern Tioga County.

Course—Northeasterly into Bradford County to North Branch Susquehanna River.

Mouth—Near Towanda.

Length—Thirty-one miles.

Drainage Area—Contains 282.5 square miles, embracing portions of Tioga, Lycoming, Sullivan and Bradford counties.

Topography—Rough and hilly; narrow agricultural valleys flanked with steep hills, rounded by glacial action.

Geology—Shale and sandstone formations, containing deposits of bituminous coal.

Channel—Sinuous, through glacial deposits of gravel and boulders.

Lakes—Lake Nephawin (36.5 acres).

HYDROGRAPHIC FEATURES

Gaging Station—Established at Monroeton, January 1914.

Precipitation—Mean annual, 30 to 40 inches.

ARTIFICIAL FEATURES

Towns—Canton (1,637), Alba (150), Powell (265), New Albany (413), Monroe (403), Monroeton (500).

Industries—Wood works; machine shops; clay banks; agriculture.

Railroads—Susquehanna & New York and Lehigh Valley traverse basin and follow stream in lower course; Northern Central traverses upper basin.

Utilization—South Branch for Lehigh Valley Railroad supply at Stevenson. Lake Nephawin and Mill Creek for water supply at Canton. Water power for small mill at Canton.

TOWANDA CREEK, NORTH BRANCH

Tributary to Towanda Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Troy Township, southwestern Bradford County.

Course—Easterly and southeasterly to Towanda Creek.

Mouth—At West Franklin.

Length—Thirteen miles.

Drainage Area—Contains 29.4 square miles in southwestern Bradford County.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Granville Center (158), Granville Summit (60), Sayles (26), West Franklin (54).

Industries—Agriculture.

Railroads—Northern Central traverses upper basin.

TOWANDA CREEK, SOUTH BRANCH

Tributary to Towanda Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Albany Township, southern Bradford County.

Course—Northwesterly to Towanda Creek.

Mouth—Opposite Monroe.

Length—Fifteen and one-half miles.

Drainage Area—Contains 51.2 square miles in southern Bradford County.

Topography—Broken and hilly; valley flanked with steep hills, rounded by glacial action.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Laddsburg (60), New Albany (413).

Industries—Wood works; agriculture.

Railroads—Lehigh Valley follows stream from source to mouth.

Utilization—Main stream for Lehigh Valley Railroad supply at Stevenson. Main stream and Satterlee Run for water supply at Monroe and Towanda. Water power for grist and flour mills.

TOWN CREEK

Tributary to Potomac River. **Basin: Potomac.**

NATURAL FEATURES

Source—Formed by junction of Wilson Run and Bushy Fork, in Southampton Township, southern Bedford County.

Course—Southwesterly into Maryland, crossing state boundary at elevation 816; thence southerly to Potomac River.

Mouth—Near Okonoko, Md.; elevation 527.

Length—In Pa., 10 miles.

Drainage Area—In Pa., 80.4 square miles in southern Bedford County.

Topography—Mountainous; the parallel ridges bounding drainage area on east and west are from 10 to 15 miles apart, the intervening country being rough and broken.

Channel—Sinuous, through sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Chaneysville (147), Elbinsville (20), Hewitt (67).

Industries—Agriculture.

Utilization—Elk Creek for water power by small mill at Chaneysville.

TOWNLINE RUN (or ISER RUN)

For description see Iser Run.

TREASTER VALLEY RUN

Tributary to East Branch Kishacoquillas Creek.

Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In Armagh Township, northeastern Mifflin County.

Course—Southwesterly to East Branch Kishacoquillas Creek.

Mouth—Near Locke Mills.

Length—Eleven miles.

Drainage Area—Contains 33.9 square miles in northeastern Mifflin County.

Topography—Mountainous; rich agricultural valley flanked with steep hills; well wooded. Typical limestone country, containing numerous sink holes.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Siglerville (70).

Industries—Agriculture.

Utilization—Water supply, in conjunction with Laûrel Creek and Coopers Gap Run, tributaries of East Branch Kishacoquillas Creek, and Minehart Run, a tributary of Juniata River, at Lewistown and surrounding towns.

TROUGH (LITTLE) CREEK

Tributary to Great Trough Creek. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Union Township, eastern central Huntingdon County.

Course—Southwesterly to Great Trough Creek.

Mouth—Two miles west of Cassville; elevation 1,132.

Length—Twelve miles.

Drainage Area—Contains 32.1 square miles in southern central Huntingdon County.

Topography—Wide main valley, with gently sloping sides, lying between Sideling Hill and Terrace Mountain; many small mountain streams.

Channel—Sinuous, through shale and sandstone formations.

Profile—Rate of fall, from elevation 1,180 to mouth, 8 miles, 6 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Calvin (96), Cassville (165).

Industries—Agriculture.

TROUT CREEK

Tributary to Lehigh River. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Blue Mountain, Heidelberg Township, Lehigh County; elevation 800.

Course—Easterly to Lehigh River.

Mouth—At Slatington; elevation 338.

Length—Eight miles.

Drainage Area—Contains 19.6 square miles in northern Lehigh County.

Topography—Basin lies at foot of Blue Mountain; rolling agricultural country.

Channel—Sinuous, through slate formation.

Profile—Rate of fall, from elevation 700 to mouth, 7.5 miles, 48.3 feet per mile.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Slatedale (600), Lehigh Furnace (48), Saegersville (98), Emerald (120), Slatington (4,454).

Industries—Slate quarries; agriculture.

Railroads—Lehigh Valley follows stream from Saegersville to mouth; Philadelphia & Reading traverses basin.

Utilization—Domestic supply at Emerald and Slatedale; industrial supply at Slatedale.

TROUT RUN

Tributary to Moshannon Creek.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Rush Township, southwestern Center County; elevation 2,180.

Course—Northerly to Moshannon Creek.

Mouth—Opposite Osceola.

Length—Six and one-half miles.

Drainage Area—Contains 11.0 square miles in southwestern Center County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Profile—Rate of fall, from source to elevation 1,500, 5 miles, 13[illegible] feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Powelton (142), Sandy Ridge (347).

Industries—Agriculture; coal mines.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream in lower course.

Utilization—Water supply at Osceola.

TROUT RUN

Tributary to West Branch Susquehanna River.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Goshen Township, northern Clearfield County.

Course—Southeasterly to West Branch Susquehanna River.

Mouth—At Shawmut.

Length—Eleven miles.

Drainage Area—Contains 40.3 square miles in northern Clearfield County.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Shawville (80).

Industries—Agriculture; timber.

TROUT RUN

Tributary to Bennett Branch.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Benzinger Township, eastern Elk County.

Course—Southeasterly to Bennett Branch Sinnemahoning Creek.

Mouth—At Benezett.

Length—Eleven miles.

Drainage Area—Contains 54.5 square miles in southeastern Elk County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Benezett (314).

Industries—Timber; agriculture.

Railroads—St. Marys & Western follows stream in upper course.

TUB MILL CREEK

Tributary to Conemaugh River. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Fairfield Township, eastern Westmoreland County.

Course—Northwesterly to Conemaugh River.

Mouth—At Bolivar.

Length—Thirteen and one-half miles.

Drainage Area—Contains 66.0 square miles in eastern Westmoreland County.

Topography—Mountainous; main valley between Chestnut and Laurel ridges.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Fort Palmer (28), West Fairfield (238), Bolivar (518).

Industries—Agriculture.

Utilization—Headwaters of two small tributaries for water supply at Bolivar.

TULPEHOCKEN CREEK

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—About 2 miles northeast of Lebanon, North Lebanon Township, Lebanon County; elevation 630.

Course—Easterly into Berks County to Schuylkill River.

Mouth—Opposite Reading; elevation 200.

Length—Thirty-seven and one-half miles.

Drainage Area—Contains 217.6 square miles in eastern Lebanon and western Berks counties.

Topography—Entire basin is within Piedmont Plateau. Upper basin lies in broad, rolling agricultural region, while lower basin is more broken and hilly, except near mouth where country is rolling.

Geology—Extensive limestone formation in upper basin; slate and limestone formations in lower basin.

Channel—Sinuous, through broad valley to Womelsdorf; thence tortuous between steep hills to 3 miles above mouth, where stream enters the broad Schuylkill Valley.

Precipitation—Mean annual, 40 to 55 inches.

ARTIFICIAL FEATURES

Towns—Myerstown (2,100), Richland (722), Stouchsburg (550), Sheridan (368), Newmanstown (612), Womelsdorf (1,301), Bernville (308), Obold (254), Wernersville (1,000), Sinking Spring (930).

Industries—Agriculture; cigar factories; distilleries; brick works; knitting mills; hosiery mills; flour mill; box factories; foundries; sanatoria.

Railroads—Philadelphia & Reading traverses southern part of basin.

Utilization—Industrial supply at Lebanon; Philadelphia & Reading railroad supply at Lebanon Valley Junction. Water power by three hydroelectric plants and numerous grist mills. The old Union Canal, connecting Schuylkill and Susquehanna rivers, followed Tulpehocken Creek for some distance before crossing divide into Swatara Creek drainage basin.

TUNEUNGWANT CREEK

Tributary to Allegheny River. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—Formed by junction of East and West branches at Bradford, northern McKean County.

Course—Northerly into New York to Allegheny River.

Mouth—Six miles north of state boundary; elevation 1,388.

Length—In Pa., 3 miles.

Drainage Area—Total, 160.0 square miles; in Pa., 140.1 square miles in northern McKean County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; main valley wide and flat in lower course.

Channel—Sinuous, through shale and sandstone formations, containing rich oil and gas deposits; bordered with wide alluvial flats in lower course.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Lewis Run (350), Custer City (180), Sawyer City (216), Bradford (14,544), Tuna Creek (90).

Industries—Large oil and gas fields; oil refineries; engine and boiler shops; foundries; brick works; miscellaneous manufacturing plants; timber; agriculture.

Pollution—Waste from oil and gas wells, refineries, etc.

Railroads—Buffalo, Rochester & Pittsburgh and Erie traverse basin and follow stream from source to state boundary.

Utilization—Main stream for Buffalo, Rochester & Pittsburgh Railroad supply at Bradford and Howard. Tributaries of West Branch for water supply at Bradford. West Branch for water power at Bradford.

TUNEUNGWANT CREEK, EAST BRANCH

Tributary to Tuneungwant Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Lafayette Township, central McKean County.

Course—Northerly to Tuneungwant Creek.

Mouth—At Bradford.

Length—Fourteen and one-half miles.

Drainage Area—Contains 62.1 square miles in northern central McKean County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; main valley widens in lower course, having wide alluvial flatlands.

Channel—Sinuous, through shale and sandstone formations, containing rich oil and gas deposits.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Big Shanty (172), Lewis Run (350), Custer City (180), Bradford (14,544).

Industries—Large oil and gas fields; timber; agriculture.

Pollution—Waste from oil and gas wells.

Railroads—Erie follows stream from source to mouth; Buffalo, Rochester & Pittsburgh traverses basin and follows stream from headwaters to mouth.

TUNEUNGWANT CREEK, WEST BRANCH

Tributary to Tuneungwant Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Lafayette Township, northwestern McKean County.

Course—Northeasterly to Tuneungwant Creek.

Mouth—At Bradford.

Length—Nine miles.

Drainage Area—In Pa., 41.6 square miles in northwestern McKean County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; main valley has wide alluvial flatlands in lower course.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Bradford (14,544).

Industries—Large oil and gas fields; timber; agriculture.

Pollution—Waste from oil and gas wells.

Railroads—Erie traverses basin and follows stream from headwaters to mouth.

Utilization—Marilla Creek and Gilbert Run for water supply at Bradford. Main stream for water power at Bradford.

TUNKHANNOCK CREEK

Tributary to Tobyhanna Creek. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Tobyhanna Township, northwestern Monroe County.

Course—Westerly, by a circuitous route, to Tobyhanna Creek, being Carbon-Monroe county boundary for last 2 miles.

Mouth—Two miles southeast of Blakeslee.

Length—Fifteen miles.

Drainage Area—Contains 50.1 square miles in western Monroe and northeastern Carbon counties.

Topography—Broken, mountainous country containing lakes and swamps of glacial origin.

Channel—Sinuous, through sandstone formation and glacial drift.

Lakes—Big Pond (110.0 acres), Long Pond (59.2 acres).

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Long Pond (40), Fernridge (45).

Industries—Timber; agriculture; ice harvesting; summer resorts.

TUNKHANNOCK CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Jackson Township, eastern Susquehanna County.

Course—Southwesterly into Wyoming County to North Branch Susquehanna River.

Mouth—At Tunkhannock.

Length—Thirty-seven miles.

Drainage Area—Contains 414.4 square miles, embracing portions of Susquehanna, Lackawanna and Wyoming counties.

Topography—Rough and hilly country within glaciated area, containing many small lakes and swamps; narrow main valley flanked with steep, high hills and having alluvial flood plains.

Geology—Sandstone formations with deposits of glacial drift.

Channel—Sinuous, through narrow valley; carved in sandstone, having steep banks and deep pools in places.

Profile—Rate of fall, from elevation 1,080 to Glenwood, elevation 800, 10.5 miles, 26.7 feet per mile.

Lakes—Loomis Lake (37.5 acres), Round Pond (23.2 acres), Carr Lake (30.0 acres), Rillie Lake (25.3 acres), Stearns Lake (38.5 acres), Mud Pond (75.6 acres), Oxbow Lake (60.4 acres), Lake Carey (262.6 acres).

HYDROGRAPHIC FEATURES

Gaging Station—Established at Dixon, January 1914.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Jackson (210), Harford (275), Nicholson (852), Kingsley (210), Hop Bottom (364), Laplume (258), Dalton (767), Factoryville (759), Tunkhannock (1,598).

Industries—Quarries; tanneries; machine shops; agriculture; summer resort.

Railroads—Delaware, Lackawanna & Western and Lehigh Valley traverse basin.

Utilization—Main stream for water power by grist mills at Glenwood and Nicholson; for hydroelectric plant at Tunkhannock. Tributaries for water supply at Harford and Nicholson.

TUNKHANNOCK CREEK, EAST BRANCH

Tributary to Tunkhannock Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Clifford Township, southeastern Susquehanna County; elevation 1,820.

Course—Southwesterly to Tunkhannock Creek.

Mouth—One-half mile south of Glenwood; elevation 790.

Length—Fifteen miles.

Drainage Area—Contains 65.8 square miles in northern Lackawanna and southeastern Susquehanna counties.

Topography—Rough and hilly; narrow valley flanked with steep hills rounded by glacial action; many small lakes and swamps.

Channel—Sinuous, through sandstone formation and glacial drift.

Profile—Rate of fall per mile: from elevations 1,400 to 1,200, 3 miles, 66.7 feet; thence to mouth, 10.5 miles, 39.0 feet.

Lakes—Hartleys Lake (21.3 acres), Cottrell Lake (23.5 acres), Lake Idlewild (62.4 acres), Newton Lake (112.2 acres), Handsome Pond (23.1 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Dundaff (150), Clifford (216), Lenoxville (126).

Industries—Agriculture; summer resort.

Utilization—Water power for small mill at Dundaff.

TUNKHANNOCK CREEK, SOUTH BRANCH

Tributary to Tunkhannock Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Scott Township, northern Lackawanna County; elevation 1,360.

Course—Westerly, by a circuitous route, into Wyoming County to Tunkhannock Creek.

Mouth—Four miles northeast of Tunkhannock.

Length—Twenty and one-half miles.

Drainage Area—Contains 98.3 square miles in northwestern Lackawanna and northeastern Wyoming counties.

Topography—Rough and hilly; main valley flanked with steep hills, having stretches of alluvial flood plains in places; many small lakes and swamps.

Channel—Sinuous, through sandstone formation and glacial drift.

Profile—Rate of fall per mile: from source to elevation 1,100, 3.5 miles, 74.3 feet; thence to elevation 1,000, 7.5 miles, 13.3 feet.

Lakes—Sicklers Pond (93.8 acres), Sheik Pond (86.7 acres), Crooked Pond (34.7 acres), Bassetts Pond (39.8 acres), Windfall Pond (40.9 acres), Walling Pond (27.2 acres), Glenburn Pond (29.1 acres), Finn Pond (100.3 acres), Gravel Pond (57.7 acres), Chapmans Lake (98.0 acres), Lily Lake (31.3 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—East Benton (213), Fleetville (279), Factoryville (759), Bardwell (230), Glenburn (319), Dalton (767), Laplume (258).

Industries—Agriculture; summer resorts.

Railroads—Delaware, Lackawanna & Western traverses basin.

Utilization—Sheik Pond for water supply at Factoryville. Water power for flour and lumber mills at Laplume, Dalton and Factoryville.

TUNKHANNOCK (UPPER) CREEK

Tributary to Tobyhanna Creek. Sub-basin: Middle Delaware.

NATURAL FEATURES

Source—In Coolbaugh Township, northern Monroe County.

Course—Southwesterly to Tobyhanna Creek.

Mouth—At Stauffers.

Length—Ten miles.

Drainage Area—Contains 28.3 square miles in northwestern Monroe County.

Topography—Broken, mountainous country containing lakes and swamps of glacial origin.

Channel—Sinuous, through sandstone formation and glacial drift.

Lakes—Lynchwood Lake (43.8 acres), Stillwater Lake (272.2 acres), Naomi Lake (251.1 acres), Pocono Summit Lake (94.1 acres).

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Pocono (71).

Industries—Agriculture; ice harvesting; summer resorts.

Railroads—Delaware, Lackawanna & Western traverses upper basin; Wilkes-Barre & Eastern traverses lower basin.

Utilization—Ice harvesting by Pocono Pines Ice Co. Water power for a small hydroelectric plant at Pocono Lake.

TURTLE CREEK

Tributary to Monongahela River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Franklin Township, northwestern Westmoreland County; elevation 1,160.

Course—Southwesterly to Trafford, forming Allegheny-Westmoreland county boundary for 6 miles; thence westerly into Allegheny County to Monongahela River.

Mouth—At Port Perry; elevation 715.2.

Length—Nineteen and one-half miles.

Drainage Area—Contains 146.6 square miles in western Westmoreland and eastern Allegheny counties.

Topography—Broken and hilly; upper basin contains rolling country beyond the steep hills along stream; valley in lower basin narrows and is flanked with steep hills. Seven per cent forested.

Channel—Sinuous, through shale and sandstone formations; wide flats near Trafford and Murrysville; walled in by masonry at East Pittsburgh and Wilmerding; obstructed by sediment of floods in lower course.

Profile—Rate of fall per mile: from source to Trafford, elevation 756, 13 miles, 31.1 feet; thence to mouth, 6.5 miles, 6.3 feet.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Trafford, July 1914. At East Pittsburgh, December 1907.

Floods—Considerable damage has been done along this stream in the lower course.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Jeannette (8,077), Irwin (2,886), Trafford (1,959), Pitcairn (4,975), East McKeesport (2,118), Wilmerding (6,133), Wall (1,962), Turtle Creek (4,995), East Pittsburgh (5,615), North Braddock (11,824).

Industries—Extensive coal mines; gas fields; cement works; brick yards; steel works; electrical and machine shops; railroad yards and shops; air brake shops; oxygen plant; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania traverses basin and follows stream from headwaters to mouth; Bessemer & Lake Erie traverses basin and follows stream near mouth.

Utilization—Tributary for water supply at East McKeesport and fire protection at Wilmerding; Fall Hollow Run for fire protection by Westinghouse Electric & Mfg. Co. at East Pittsburgh; tributary of Brush Creek for industrial supply at Irwin.

TUSCARORA CREEK

Tributary to Juniata River. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In Tell Township, southeastern Huntingdon County.

Course—Northeasterly into Juniata County to Juniata River.

Mouth—At Port Royal.

Length—Forty-four miles.

Drainage Area—Contains 256.1 square miles, embracing portions of Huntingdon, Franklin, Perry, Mifflin and Juniata counties.

Topography—Mountainous; broad main valley containing rolling agricultural country, bounded by parallel ridges of Allegheny Mountains; well wooded on slopes.

Geology—Shale, sandstone and limestone formations.

Channel—Sinuous, bordered with agricultural bottom lands.

HYDROGRAPHIC FEATURES

Gaging Station—Established near Port Royal, August 1911.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Nossville (65), Concord (150), Blairs Mills (150), Waterloo (70), East Waterford (340), Honey Grove (279), McCoysville (142), Academia (186), Walnut (150), Port Royal (535).

Industries—Agriculture; timber; tannery.

Railroads—Tuscarora Valley follows stream from Blairs Mills to mouth.

Utilization—Water power by a few small grist mills.

TUSCARORA CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Auburn Township, southwestern Susquehanna County.

Course—Southwesterly, through Bradford County, into Wyoming County to North Branch Susquehanna River.

Mouth—Near Laceyville.

Length—Ten miles.

Drainage Area—Contains 34.8 square miles, embracing portions of Susquehanna, Bradford and Wyoming counties.

Topography—Rough and hilly; narrow valley flanked with steep hills rounded by glacial action.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—West Auburn (200), Silvara (172), Laceyville (479).

Industries—Quarries; agriculture.

TUSCARORA (LITTLE) CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Tuscarora Township, southeastern Bradford County.

Course—Southeasterly into Wyoming County to North Branch Susquehanna River.

Mouth—Near Laceyville.

Length—Seven miles.

Drainage Area—Contains 8.0 square miles in southeastern Bradford and northwestern Wyoming counties.

Topography—Rough and hilly; narrow valley, flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Laceyville (479).

Industries—Quarries; machine shops; planing mills; agriculture.

Utilization—Water supply at Laceyville.

TWOLICK CREEK

Tributary to Blacklick Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—Formed by junction of North and South branches, in Cherryhill Township, eastern Indiana County; elevation 1,290.

Course—Southwesterly to Blacklick Creek.

Mouth—Near Black Lick.

Length—Twenty-six and one-half miles.

Drainage Area—Contains 190.2 square miles in eastern central Indiana County.

Topography—Mountainous in headwaters; main valley is wide flanked with irregular and rounded hills almost denuded of timber.

Channel—Tortuous, through shale and sandstone formations, containing rich coal beds and some limestone; bordered with alluvial flood plains at foot of the steep banks.

Profile—Rate of fall, from source to elevation 980, 25 miles, 12.4 feet per mile.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Homer City (985), Indiana (5,749), Clymer (1,753), Dixonville (550), Starford (350).

Industries—Coal mines; glass works; foundries; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania and Buffalo, Rochester & Pittsburgh traverse basin and follow stream in lower course; New York Central & Hudson River traverses upper basin.

Utilization—Water supply at Coral, Graceton and Indiana. Yellow Creek for water supply at Lucerne and Heilwood.

TWOMILE RUN

Tributary to Tionesta Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Wetmore Township, southwestern McKean County.

Course—Northwesterly into Warren County; thence southwesterly to Tionesta Creek.

Mouth—At Sheffield.

Length—Twelve miles.

Drainage Area—Contains 29.1 square miles in southwestern McKean and southeastern Warren counties.

Topography—Rough and hilly; narrow valley flanked with steep hills; well wooded; some virgin timber.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Wetmore (103), Ludlow (507), Sheffield (1,550).

Industries—Timber; agriculture.

Railroads—Pennsylvania follows stream from source to mouth.

Utilization—Deerlick Run for water supply at Sheffield.

VETERA BRANCH (or NORTH BRANCH BLACKLICK CREEK)

For description see North Branch Blacklick Creek.

WALLACE RUN

Tributary to Bald Eagle Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Union Township, western Center County; elevation 2,230.

Course—Northeasterly and southeasterly to Bald Eagle Creek.

Mouth—At Wingate; elevation 715.

Length—Twelve miles.

Drainage Area—Contains 27.7 square miles in central Center County.

Topography—Mountainous; narrow valley flanked with precipitous hills; broadens in lower course; well wooded.

Channel—Sinuous, through sandstone formations; rocky bed with steep, rough banks.

Profile—Rate of fall per mile: from elevations 1,600 to 900, 6.5 miles, 107.7 feet; thence to mouth, 3.5 miles, 52.9 feet.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Runville (55), Wingate (53).

Industries—Agriculture.

Railroads—Pennsylvania traverses basin and follows stream in lower course.

Utilization—Pennsylvania Railroad water supply at Snow Shoe Intersection.

WALLENPAUPACK CREEK

Tributary to Lackawaxen River. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Pocono Plateau, Coolbaugh Township, northwestern Monroe County.

Course—Northeasterly to Lackawaxen River, being Wayne-Pike county boundary from 2 miles below source to mouth.

Mouth—At Hawley.

Length—Twenty-eight miles.

Drainage Area—Contains 239.6 square miles, embracing portions of Monroe, Lackawanna, Pike and Wayne counties.

Topography—Broken, mountainous country containing many lakes and swamps of glacial origin; valuable stands of timber.

Geology—Shale and sandstone formations; glacial drift.

Channel—Sinuous, through a rock defile at Ledgedale, entering an old buried valley through which it winds for 12 miles, having very little fall; thence over cascades, including Paupack Falls.

Lakes—Butlers Pond (43.9 acres), Long Pond (75.8 acres), Purdys Pond (61.0 acres), Goose Pond (41.6 acres), Wildwood Pond (58.3 acres), Lake Ariel (252.2 acres), Bidwell Pond (70.5 acres).

HYDROGRAPHIC FEATURES

Gaging Station—Established at Wilsonville, July 1908.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—South Sterling (246), Laanna (116), Newfoundland (886), Greentown (150), Ledgedale (192), Paupac (65), Tafton (141), Hawley (2,018).

Industries—Glass factories; silk mills; summer resorts; ice harvesting; timber.

Railroads—Erie traverses northwestern portion of basin.

Utilization—Water power by mills and electric light plant. A large development of main stream has been proposed.

WALLENPAUPACK CREEK, EAST BRANCH

Tributary to Wallenpaupack Creek. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Greene Township, western central Pike County.

Course—Northwesterly to Wallenpaupack Creek.

Mouth—Near Greentown.

Length—Nine miles.

Drainage Area—Contains 30.9 square miles in western Pike County.

Topography—Broken, mountainous country containing lakes and swamps of glacial origin; well wooded.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Lakes—Lake Paupack (107.3 acres), Promise Land Pond (422.3 acres).

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Greentown (150).

Industries—Timber; agriculture; summer resorts; ice harvesting.

WALLENPAUPACK CREEK, WEST BRANCH

Tributary to Wallenpaupack Creek. Sub-basin: Upper Delaware.

NATURAL FEATURES

Source—In Jefferson Township, eastern Lackawanna County; elevation 2,040.

Course—Southeasterly into Wayne County to Wallenpaupack Creek.

Mouth—At Hub.

Length—Fourteen miles.

Drainage Area—Contains 70.7 square miles in eastern Lackawanna and southern Wayne counties.

Topography—Broken, mountainous country containing many lakes and swamps of glacial origin.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Lakes—Hartford Pond (51.9 acres), Lake Henry (256.4 acres), Kizers Pond (84.6 acres), Moosic Lake (86.1 acres).

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Wimmers (108), Drinker (70), Hollisterville (375), Callapoose (31), Sterling (260).

Industries—Summer resorts; ice harvesting; agriculture; timber.

Railroads—Erie traverses upper basin.

WALLIS RUN

Tributary to Loyalsock Creek.

Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Cascade Township, northeastern Lycoming County.

Course—Southwesterly to Loyalsock Creek.

Mouth—Two miles north of Loyalsock.

Length—Twelve miles.

Drainage Area—Contains 34.7 square miles in northeastern Lycoming County.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Kellyburg (63), Wallis Run (99).

Industries—Timber; agriculture.

WALNUT CREEK

Tributary to Lake Erie. Basin: Erie.

NATURAL FEATURES

Source—In Greene Township, northern central Erie County; elevation 1,380.

Course—Westerly to Lake Erie.

Mouth—Eight miles southwest of Erie; elevation 573.

Length—Twenty miles.

Drainage Area—Contains 36.7 square miles in northern central Erie County.

Topography—Rolling hills with broad valleys and lake terraces; main valley becomes narrow in lower course.

Channel—Sinuous, through alluvial deposits; in a ravine through shale and sandstone in lower 4 miles.

Profile—Rate of fall, from source to mouth, 40.4 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Godard (77), Kearsarge (150), Swanville (110).

Industries—Quarries; agriculture; fruit growing.

Railroads—Lake Shore & Michigan Southern, New York, Chicago & St. Louis and Pennsylvania traverse basin.

WAPPASENING CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In northeastern Bradford County, near Bradford-Susquehanna county boundary.

Course—Southeasterly into Susquehanna County; thence westerly and northwesterly through Bradford County into New York to North Branch Susquehanna River.

Mouth—In New York.

Length—In Pa., 17 miles.

Drainage Area—In Pa., 61.6 square miles in northwestern Susquehanna and northeastern Bradford counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through glacial drift and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Warren Center (171), West Warren (50), Cadis (64), Windham (256), Windham Center (163).

Industries—Agriculture.

WAPWALLOPEN CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—Crystal Lake, in Bear Creek Township, eastern central Luzerne County; elevation 1,915.

Course—Southwesterly to North Branch Susquehanna River.

Mouth—At Wapwallopen; elevation 486.

Length—Twenty and one-half miles.

Drainage Area—Contains 56.9 square miles in southern central Luzerne County.

Topography—Nescopeck Mountain borders basin on southeast; main basin is broken, hilly country, containing a few swamps and lakes.

Channel—Sinuous, through shale and sandstone formations; hemmed in by steep, high hills in lower 2 miles, where there are high falls.

Profile—Rate of fall per mile: from source to elevation 1,400, 2 miles, 257.5 feet; thence to elevation 800, 14 miles, 42.9 feet; thence to mouth, 4.5 miles, 69.8 feet.

Lakes—Crystal Lake (420.0 acres).

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Hobbie (113), Briggsville (60), Wapwallopen (450).

Industries—Agriculture.

Railroads—Lehigh Valley and Central Railroad of New Jersey traverse upper basin.

Utilization—Main stream and Crystal Lake for water supply by Spring Brook Water Supply Co. Water power by small hydroelectric plant and mills in lower course.

WAPWALLOPEN (LITTLE) CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Lower North Branch Susquehanna.

NATURAL FEATURES

Source—In Haystack Mountain, Wright Township, central Luzerne County; elevation 1,620.

Course—Southwesterly to North Branch Susquehanna River.

Mouth—Two miles north of Wapwallopen; elevation 489.

Length—Seventeen miles.

Drainage Area—Contains 35.8 square miles in southern central Luzerne County.

Topography—Mountainous in headwaters; main basin is broken, hilly country containing a few lakes and swamps of glacial origin; main valley is wide.

Channel—Tortuous, through shale and sandstone formations; bordered by gently sloping hills.

Profile—Rate of fall, from elevation 1,400 to mouth, 16.5 miles, 55.2 feet per mile.

Lakes—Long Pond (108.1 acres), Triangular Pond (98.5 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Nuangola (124), Dorrance (85), Pond Hill (75).

Industries—Agriculture.

WARRIORS RUN (or MARK RUN)

Tributary to Spruce Creek. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Half Moon Township, southwestern Center County.

Course—Southerly, by a circuitous route, into Huntingdon County to Spruce Creek.

Mouth—One mile southwest of Franklinville.

Length—Eleven and one-half miles.

Drainage Area—Contains 33.3 square miles in southwestern Center and northwestern Huntingdon counties.

Topography—Mountainous; narrow valley flanked with steep, high hills; well wooded.

Channel—Sinuous, through limestone formation containing some iron ore.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Warriors Mark (400), Huntingdon Furnace (50).

Industries—Agriculture.

Railroads—Pennsylvania traverses basin.

Utilization—Water power for small grist mill at Warriors Mark.

WEST CREEK

Tributary to Driftwood Branch.
Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Benzinger Township, eastern Elk County.

Course—Northeasterly into Cameron County to Driftwood Branch Sinnemahoning Creek.

Mouth—Opposite Emporium.

Length—Nineteen miles.

Drainage Area—Contains 58.3 square miles in eastern Elk and western Cameron counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Rathbun (44), Beechwood (56).

Industries—Foundry; powder works; coal mines; timber; agriculture.

Railroads—Pennsylvania follows stream from headwaters to mouth; Pittsburgh, Shawmut & Northern traverses upper basin.

Utilization—Main stream and Towner Run for water supply at Emporium.

WHITE CREEK (or WEST BRANCH MESHOPPEN CREEK)

For description see West Branch Meshoppen Creek.

WHITE CLAY CREEK

Tributary to Christiana Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—In West Marlboro Township, southwestern Chester County; elevation 500.

Course—Southeasterly into State of Delaware to Christiana Creek.

Mouth—Near Newport, Del.; tidewater.

Length—In Pa., 13 miles.

Drainage Area—In Pa., 94.6 square miles in southern Chester County.

Topography—Rolling agricultural country, being broken and hilly in places.

Channel—Sinuous, through shale, sandstone, limestone and trap formations.

Profile—Rate of fall per mile: from source to elevation 300, 3.5 miles, 57.1 feet; thence to state boundary, elevation 95, 9.5 miles, 21.6 feet.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Chatham (200), Avondale (668), Westgrove (1,261), Landenberg (600), Unionville (516), Kennett Square (2,049).

Industries—Agriculture; clay banks; stone quarries.

Railroads—Pennsylvania follows stream from source to state boundary; Philadelphia, Baltimore & Washington traverses basin.

Utilization—Water power for numerous small mills.

WHITE CLAY CREEK, WEST BRANCH

Tributary to White Clay Creek. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—Near Jennersville, Penn Township, Chester County; elevation 560.

Course—Southeasterly to White Clay Creek.

Mouth—Near Pennsylvania-Delaware boundary; elevation 118.

Length—Nine and one-half miles.

Drainage Area—Contains 25.6 square miles in southwestern Chester County.

Topography—Rolling agricultural country, being broken and hilly in places.

Channel—Sinuous, through sandstone and trap formations.

Profile—Rate of fall, from source to mouth, 46.5 feet per mile.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Westgrove (1,261), New London (150), Kelton (150).

Industries—Agriculture.

Railroads—Philadelphia, Baltimore & Washington traverses basin.

WHITE DEER CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Lewis Township, northwestern Union County.

Course—Easterly to West Branch Susquehanna River.

Mouth—At Whitedeer.

Length—Fifteen and one-half miles.

Drainage Area—Contains 46.9 square miles in eastern Center and northern Union counties.

Topography—Mountainous; narrow valley flanked with steep ridges; partly wooded.

Channel—Sinuous, through sandstone formation; steep banks and rocky bed.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Whitedeer (136).

Industries—Agriculture.

Railroads—White Deer & Loganton follows stream from source to mouth.

Utilization—Water supply by White Deer Mountain Water Co.

WHITE DEER HOLE CREEK

Tributary to West Branch Susquehanna River.
Sub-basin: Lower West Branch Susquehanna.

NATURAL FEATURES

Source—In Limestone Township, southern Lycoming County.

Course—Easterly into Union County to West Branch Susquehanna River.

Mouth—Near Allenwood.

Length—Seventeen miles.

Drainage Area—Contains 67.1 square miles in southern Lycoming and northeastern Union counties.

Topography—Mountainous in headwaters; broad, rolling agricultural land in main valley.

Channel—Sinuous, through sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Elimsport (293), Spring Garden (50), Allenwood (410).

Industries—Agriculture.

WHITELEY CREEK

Tributary to Monongahela River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Whiteley Township, southern central Greene County; elevation 1,290.

Course—Easterly, by a circuitous route, to Monongahela River.

Mouth—Two miles west of Masontown; elevation 760.1.

Length—Twenty-three miles.

Drainage Area—Contains 55.2 square miles in eastern Greene County.

Topography—Hilly; broad main valley, flanked with steep hills in lower course.

Channel—Sinuous, through meadows and bottom lands.

Profile—Rate of fall, from elevation 1,100 to mouth, 22.5 miles, 15.1 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Whiteley (160), Mapletown (134).

Industries—Oil; gas; agriculture.

WHITES CREEK

Tributary to Casselman River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Negro Mountain, Garrett County, Maryland, 0.5 mile south of state boundary; elevation 2,680.

Course—Northwesterly into Somerset County to Casselman River, crossing state boundary at elevation 2,520.

Mouth—Opposite Harnedsville.

Length—In Pa., 10 miles.

Drainage Area—Total, 37.0 square miles; in Pa., 29.5 square miles in southwestern Somerset County.

Topography—Rough and hilly country; narrow valley flanked with steep, well wooded hills.

Channel—Sinuous, through shale and sandstone formations, containing some coal.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Dumas (28).

Industries—Agriculture.

Railroads—Baltimore & Ohio follows stream from headwaters to mouth.

WICONISCO CREEK

Tributary to Susquehanna River.

Sub-basin: Middle Main Susquehanna.

NATURAL FEATURES

Source—In Porter Township, southwestern Schuylkill County; elevation 940.

Course—Southwesterly into Dauphin County to Susquehanna River.

Mouth—At Millersburg; elevation 371.

Length—Thirty-eight miles.

Drainage Area—Contains 115.8 square miles in southwestern Schuylkill and northern Dauphin counties.

Topography—Main valley lies between steep mountain ridges, being narrow in upper basin and broad below Lykens to mouth.

Channel—Tortuous, through shale and sandstone formations, containing anthracite deposits.

Profile—Rate of fall, from elevation 800 to mouth, 37.5 miles, 11.4 feet per mile.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Tower City (2,325), Williamstown (2,904), Lykens (2,943), Wiconisco (2,000), Elizabethville (1,039), Millersburg (2,394).

Industries—Coal mines.

Pollution—Waste from coal mines.

Railroads—Philadelphia & Reading follows stream from source to Lykens; Pennsylvania follows stream from Williamstown to mouth.

Utilization—Main stream and Bear Creek for industrial supply at Short Mountain. Water power for small mills and hydroelectric plant.

WILLOW RUN

Tributary to Tuscarora Creek. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In Lack Township, southwestern Juniata County.

Course—Northeasterly to Tuscarora Creek.

Mouth—One mile northeast of McCullochs Mills.

Length—Ten miles.

Drainage Area—Contains 25.5 square miles in southwestern Juniata County.

Topography—Mountainous; main valley is rolling country; bordered by ridge on northwest.

Channel—Sinuous, through shale, sandstone and limestone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Lack (75) Peru Mills (40), Reeds Gap (56), McCullochs Mills (116).

Industries—Agriculture.

WILLS CREEK

Tributary to Potomac River. Basin: Potomac.

NATURAL FEATURES

Source—In Larimer Township, southeastern Somerset County.

Course—Northwesterly and easterly into Bedford County to Hyndman; thence southerly into Maryland to Potomac River, crossing state boundary at State Line, elevation 736.

Mouth—At Cumberland, Md.; elevation 612.

Length—In Pa., 27 miles.

Drainage Area—In Pa., 186.6 square miles in southeastern Somerset and southwestern Bedford counties.

Topography—Mountainous; main stream cuts through Savage Mountain and another ridge entering a valley flanked by ridges, Wills Mountain being the eastern slope, which it follows to state boundary.

Channel—Sinuous, through sandstone and limestone formations containing coal; rough with steep banks.

Precipitation—Mean annual, 35 to 50 inches.

ARTIFICIAL FEATURES

Towns—Fairhope (200), Hyndman (1,164), Wellersburg (193).

Industries—Agriculture; coal mines; fire clay mines and works; tanneries; timber.

Railroads—Baltimore & Ohio follows stream from Mance to State Line; Pennsylvania traverses basin and follows stream from Hyndman to State Line.

Utilization—Baltimore & Ohio Railroad water supply at Hyndman, Glencoe and Southampton; Pennsylvania Railroad water supply at State Line. Laurel Run, a small tributary of Little Wills Creek, for water supply at Hyndman. Water power by small grist mill at Cooks Mills.

WILLS (LITTLE) CREEK

Tributary to Wills Creek. Basin: Potomac.

NATURAL FEATURES

Source—In Juniata Township, western Bedford County.

Course—Southeasterly to Bard; thence southwesterly to Wills Creek.

Mouth—Opposite Hyndman.

Length—Fourteen and one-half miles.

Drainage Area—Contains 45.2 square miles in eastern Somerset and western Bedford counties.

Topography—Mountainous; main valley below Bard flanked with parallel ridges.

Channel—Sinuous, through sandstone and limestone formations; rough with steep banks.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—West End (40), Bard (60), Fossilville (50).

Industries—Agriculture.

Railroads—Pennsylvania follows stream from Bard to mouth.

Utilization—Main stream and Laurel Run for water supply at Hyndman.

WILMER RUN (or NORTH WILMER RUN)

Tributary to Clearfield Creek.

Sub-basin: Upper West Branch Susquehanna.

NATURAL FEATURES

Source—In Chest Township, southern Clearfield County; elevation 1,600.

Course—Southeasterly to Clearfield Creek.

Mouth—At Irvona; elevation 1,362.

Length—Six and one-half miles.

Drainage Area—Contains 32.4 square miles in southern Clearfield and northern central Cambria counties.

Topography—Rough, hilly country; valleys have narrow bottom lands flanked with steep hills.

Channel—Sinuous, through shale and sandstone formations, containing coal.

Profile—Rate of fall, from source to mouth, 36.6 feet per mile.

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Berwinsdale (170), Irvona (800).

Industries—Coal mines; agriculture.

Railroads—Pennsylvania traverses basin and follows stream from headwaters to mouth.

Utilization—Pennsylvania Railroad water supply at Comfort Run.

WILMER (NORTH) RUN (or WILMER RUN)

For description see Wilmer Run.

WISSAHICKON CREEK

Tributary to Schuylkill River. Sub-basin: Lower Delaware.

NATURAL FEATURES

Source—One mile east of Lansdale, Montgomery Township, Montgomery County; elevation 440.

Course—Southerly, by a circuitous route, into Philadelphia County to Schuylkill River.

Mouth—At Wissahickon.

Length—Twenty-three miles.

Drainage Area—Contains 63.8 square miles in eastern Montgomery and northwestern Philadelphia counties.

Topography—Rolling agricultural country, thickly settled; broad main valley, except in lower course where stream flows through narrow gorge 200 feet deep.

Channel—Sinuous, through red shale and sandstone formations, with some limestone and finally a gneiss formation; in a rough, rocky gorge for last 7 miles.

Profile—Rate of fall per mile: from source to elevation 200, 9 miles, 26.7 feet; thence to elevation 20, 13.5 miles, 13.3 feet; thence 0.5 mile to mouth.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Wissahickon, near Philadelphia, May 1897; discontinued July 1906.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Lansdale (3,551), North Wales (1,710), Ambler (2,649), and suburbs of Philadelphia, including Chestnut Hill, Germantown and Wissahickon.

Industries—Stove, radiator and agricultural works; silk mill; shirt, glue, leather and asbestos factories; agriculture.

Railroads—Philadelphia & Reading traverses basin and follows stream from Hoyt to Fort Washington; Pennsylvania traverses basin.

Utilization—Industrial supply at Ambler; Pennsylvania Railroad supply at White Marsh. Two small tributaries for water supply at Ambler. Water power by grist mills.

WOLF CREEK

Tributary to Slippery Rock Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Worth Township, eastern Mercer County; elevation 1,460.

Course—Southerly into Butler County to Slippery Rock Creek.

Mouth—Three miles southwest of Slippery Rock; elevation 1,097.

Length—Twenty-three and one-half miles.

Drainage Area—Contains 100.3 square miles, embracing portions of Venango, Mercer, Lawrence and Butler counties.

Topography—Broad, flat valleys with many swamps and gentle slopes; well within the glaciated area; notable absence of sharp hills and deep watercourses.

Channel—Sinuous, through many swamps and occasional gravel beds.

Profile—Rate of fall per mile: from source to Millbrook, elevation 1,300, 4.5 miles, 35.6 feet; thence to mouth, 19 miles, 10.7 feet.

Lakes—Barmore Lake (20.9 acres).

Precipitation—Mean annual, 40 to 45 inches.

ARTIFICIAL FEATURES

Towns—Grove City (3,674), Slippery Rock (870).

Industries—Gas engine works; foundries; carriage works; broom works; novelty works; planing mill; flour mill; machine shops; extensive agriculture.

Railroads—Bessemer & Lake Erie and Pennsylvania Lines West of Pittsburgh traverse basin.

Utilization—Water power by pumping plant at Grove City and by several small grist mills.

WOODCOCK CREEK

Tributary to French Creek. Sub-basin: Upper Allegheny.

NATURAL FEATURES

Source—In Randolph Township, southeastern Crawford County.

Course—Northwesterly to French Creek.

Mouth—Near Saegerstown.

Length—Eighteen and one-half miles.

Drainage Area—Contains 55.3 square miles in central Crawford County.

Topography—Rolling agricultural country with wide valleys; basin within glaciated region, and contains many small lakes and swamps.

Channel—Tortuous, through shale and glacial drift.

Precipitation—Mean annual, 40 to 50 inches.

ARTIFICIAL FEATURES

Towns—Lyona (37), Randolph (100), Blooming Valley (150), Longs Stand (73), Saegerstown (712).

Industries—Agriculture.

Utilization—Water power for small mills.

WOODEN BRIDGE CREEK

Tributary to Sideling Hill Creek. Sub-basin: Lower Juniata.

NATURAL FEATURES

Source—In Wells Township, northwestern Fulton County.

Course—Northeasterly to Sideling Hill Creek.

Mouth—Near Dublin Mills.

Length—Ten and one-half miles.

Drainage Area—Contains 25.4 square miles in northern Fulton County.

Topography—Mountainous; narrow valley flanked with steep, high hills.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Laidig (42), West Dublin (35), Gracey (27).

Industries—Agriculture.

WYALUSING CREEK

Tributary to North Branch Susquehanna River.
Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—Formed by junction of Middle and East branches in Rush Township, western Susquehanna County.

Course—Southwesterly into Bradford County to North Branch Susquehanna River.

Mouth—At Wyalusing.

Length—Sixteen and one-half miles.

Drainage Area—Contains 216.2 square miles in western Susquehanna and southeastern Bradford counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills, rounded by glacial action. Lakes and swamps in headwaters.

Geology—Shale and sandstone formations covered by deposits of glacial drift.

Channel—Sinuous, through narrow valley with steep banks; carved in sandstone rocks and the glacial deposit.

Lakes—Camp Pond (28.0 acres).

HYDROGRAPHIC FEATURES

Gaging Station—Established at Wyalusing, October 1908.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Montrose (1,914), Forest Lake (198), Birchardville (116), Friendsville (103), Rushville (76), Rush (230), Le Raysville (326), Stevensville (340), Camptown (300), Wyalusing (580).

Industries—Foundry; planing mill; furniture factory; agriculture; dairying.

Utilization—Main stream and Statford Brook for water supply at Wyalusing. Water power for roller mill, sawmill and grist mill at Camptown, and for grist mills at Blacks Mills and Wyalusing.

WYALUSING CREEK, EAST BRANCH

Tributary to Wyalusing Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Bridgewater Township, central Susquehanna County.

Course—Southwesterly to Wyalusing Creek.

Mouth—Near Rush.

Length—Thirteen and one-half miles.

Drainage Area—Contains 69.8 square miles in western central Susquehanna County.

Topography—Rough and hilly; narrow valleys flanked with steep hills rounded by glacial action; some swamps and ponds.

Channel—Sinuous, through shale and sandstone formations.

Lakes—Big Elk Lake (84.0 acres), Little Elk Lake (45.6 acres), Forest Lake (46.2 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Montrose (1,914), Forest Lake (198), Fairdale (125), South Montrose (126), Elk Lake (175), East Rush (46), Rushboro (40), Rush (230).

Industries—Foundry; planing mill; agriculture; summer resorts.

WYALUSING CREEK, MIDDLE BRANCH

Tributary to Wyalusing Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Silver Lake Township, northwestern Susquehanna County.

Course—Southwesterly to Wyalusing Creek.

Mouth—Near Rush.

Length—Thirteen miles.

Drainage Area—Contains 35.7 square miles in western Susquehanna County.

Topography—Rough and hilly; narrow valley flanked with steep hills rounded by glacial action.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Birchardville (116), Flynn (31).

Industries—Agriculture.

Utilization—Water power for mill at Birchardville.

WYALUSING CREEK, NORTH BRANCH

Tributary to Wyalusing Creek.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Apolacon Township, northwestern Susquehanna County.

Course—Southwesterly to Wyalusing Creek.

Mouth—Near Rushville.

Length—Eleven miles.

Drainage Area—Contains 43.9 square miles in western Susquehanna and northeastern Bradford counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills rounded by glacial action.

Channel—Sinuous, through shale and sandstone formations.

Lakes—Wyalusing Lake (42.5 acres).

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Friendsville (103), Middletown Center (82).

Industries—Agriculture; summer resort.

Utilization—Water power for mill at Friendsville.

WYSOX CREEK

Tributary to North Branch Susquehanna River.

Sub-basin: Upper North Branch Susquehanna.

NATURAL FEATURES

Source—In Windham Township, northeastern Bradford County.

Course—Southwesterly to North Branch Susquehanna River.

Mouth—Near Wysox.

Length—Fourteen miles.

Drainage Area—Contains 100.7 square miles in northeastern Bradford County.

Topography—Rough and hilly; agricultural valley flanked with steep hills, rounded by glacial action.

Channel—Sinuous, through shale and sandstone formations and glacial drift.

Lakes—Lake Wesauking (67.3 acres).

Precipitation—Mean annual, 30 to 40 inches.

ARTIFICIAL FEATURES

Towns—Rome (222), Orwell (125), North Rome (105), Bumpville (140).

Industries—Agriculture.

YELLOW CREEK

Tributary to Raystown Branch. Sub-basin: Upper Juniata.

NATURAL FEATURES

Source—In Woodbury Township, northern Bedford County; elevation 1,300.

Course—Southerly to Loysburg; thence southeasterly to Raystown Branch Juniata River.

Mouth—Opposite Hopewell.

Length—Seventeen miles.

Drainage Area—Contains 95.7 square miles in northeastern Bedford County.

Topography—Broad agricultural valley in upper basin between Tussey and Dunning mountains; stream cuts through former at Loysburg and enters rough, hilly country.

Channel—Sinuous, through limestone formation in upper basin; enters shale and sandstone in mountain gap and continues in same formations to mouth, crossing a narrow belt of limestone.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Woodbury (255), Waterside (163), New Enterprise (300), Loysburg (364), Yellow Creek (193).

Industries—Agriculture.

Utilization—Water power by several small grist mills.

YELLOW CREEK

Tributary to Little Connoquenessing Creek. Sub-basin: Main Ohio.

NATURAL FEATURES

Source—In Muddy Creek Township, western Butler County; elevation 1,300.

Course—Southerly to Little Connoquenessing Creek.

Mouth—Two miles northeast of Harmony; elevation 928.

Length—Seven and one-half miles.

Drainage Area—Contains 16.6 square miles in western Butler County.

Topography—Hilly; steep valleys, with generally straight alignment.

Channel—Comparatively straight, in clay and gravel.

Profile—Rate of fall, from elevation 1,100 to mouth, 6 miles, 28.7 feet per mile.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Middle Lancaster (104).

Industries—Agriculture.

YELLOW CREEK

Tributary to Twolick Creek. Sub-basin: Lower Allegheny.

NATURAL FEATURES

Source—In Green Township, eastern Indiana County; elevation 1,900.

Course—Southwesterly to Twolick Creek.

Mouth—At Homer City; elevation 1,000.

Length—Twenty-five miles.

Drainage Area—Contains 67.1 square miles in southeastern Indiana County.

Topography—Rough and hilly; main valley flanked with steep hills, except for a short stretch in middle basin and near mouth, where slopes are gentle and valley is wide.

Channel—Tortuous, through shale and sandstone formations, containing coal and some limestone; through a broad alluvial flat in middle basin; in a gorge in lower course, where stream cuts through Chestnut Ridge.

Profile—Rate of fall, from source to mouth, 36 feet per mile.

Precipitation—Mean annual, 45 to 50 inches.

ARTIFICIAL FEATURES

Towns—Homer City (985).

Industries—Coal mines; agriculture.

Pollution—Waste from coal mines.

Railroads—Pennsylvania, New York Central & Hudson River and Buffalo, Rochester & Pittsburgh traverse basin.

Utilization—Water supply at Heilwood and Lucerne.

YELLOW BREECHES CREEK

Tributary to Susquehanna River.

Sub-basin: Lower Main Susquehanna.

NATURAL FEATURES

Source—In South Mountain, Southampton Township, southwestern Cumberland County.

Course—Northeasterly to Susquehanna River, forming Cumberland-York county boundary for 21 miles.

Mouth—At New Cumberland; elevation 291.

Length—Fifty-four miles.

Drainage Area—Contains 227.5 square miles, embracing portions of Cumberland, Adams and York counties.

Topography—Headwaters in South Mountain; main basin lies in broad, fertile Cumberland Valley.

Geology—Limestone, quartzite; red shale and sandstone, containing intrusions of trap rock.

Channel—Tortuous, through sandstone and limestone formations; bordered by wide alluvial bottom lands in places.

Profile—Rate of fall, from elevation 540 to mouth, 35 miles, 7.1 feet per mile.

Springs—The limestone formation north of stream produces many copious springs, notably Boiling Springs, which are by far the largest in the state, maintaining a continuous flow of over 20,000,000 gallons per 24 hours. These springs give the stream an unusually strong dry season flow.

HYDROGRAPHIC FEATURES

Gaging Station—Established at Olmsted's Mill, near White Hill, March 1909; discontinued October 1909; re-established January 1910.

Precipitation—Mean annual, 35 to 45 inches.

ARTIFICIAL FEATURES

Towns—Dickinson (843), Huntsdale (310), Mt. Holly Springs (1,272), Boiling Springs (600), Dillsburg (853), Shiremanstown (545), Camp Hill (875), New Cumberland (1,472).

Industries—Forges and foundries; spoke works; paper mills; quarries; lime kilns; agriculture.

Railroads—Philadelphia & Reading traverses basin and follows stream from Walnut Bottom to Bowmansdale; Cumberland Valley traverses basin.

Utilization—Water supply at Mechanicsburg; Philadelphia & Reading railroad supply at Hays Grove and Moors Mill. Tributaries for water supply at Mt. Holly Springs, New Cumberland and Lemoyne. Water power by many small mills and several hydroelectric plants, about 2,000 horsepower being generated by a total of 24 mills on main stream and tributaries.

YOUGHIOGHENY RIVER

Tributary to Monongahela River. Sub-basin: Monongahela.

NATURAL FEATURES

Source—In Preston County, West Virginia, near Maryland-West Virginia boundary; elevation 2,900.

Course—Northerly, through Maryland, into Pennsylvania to junction of Casselman River at Confluence; thence northwesterly to Monongahela River.

Mouth—At McKeesport; elevation 715.2.

Length—Total, 123 miles; in Pa., 83 miles.

Drainage Area—Total, 1,732.0 square miles; in Pa., 1,265.4 square miles, embracing portions of Fayette, Somerset, Westmoreland and Allegheny counties.

Topography—The greater part of basin is rough and drains western slopes of Allegheny Mountains. Many of the small tributaries, particularly in the upper region, flow through deep, narrow, sparsely settled valleys, the slopes of which are generally wooded. The upper half of basin has five well defined mountain ranges, crossing in a northeasterly and southwesterly direction, through the generally broken surface of the region. Above Confluence main stream flows parallel to the ridge structure, but below that place it breaks through nearly at right angles and enters more open country, which continues to the mouth.

Geology—Principally shale and sandstone formations, containing some limestone, oil and gas. There are valuable and extensively developed bituminous coal beds in middle and lower portions of basin.

Channel—Sinuous, through mountainous and hilly regions; carved in shale and sandstone in upper basin, and in alluvial clay and gravel, with an occasional rock outcrop in the bed, in lower basin. From near Oakland, Md., to several miles above Friendsville the valley proper is narrow, rugged and almost uninhabited, the stream falling over rock ledges and immense rock boulders that have dropped from the slopes. From Friendsville to a point several miles below

Plate XX

Youghiogheny River at confluence with Casselman River

Confluence the valley widens considerably, and the stream for the greater part of the distance flows in level flood plains, which alternate from side to side. Bottom land obtains at numerous places, from Dunbar Creek, above Connellsville, to Monongahela River, and upon these areas are located thriving coal mining and manufacturing towns. Connellsville is the heart of the famous coke producing region.

Profile—Rate of fall per mile: from elevation 940 to Connellsville, elevation 860, 7 miles, 11.4 feet; thence to elevation 760, 21.5 miles, 4.7 feet; thence to mouth, 22.5 miles, 2.0 feet.

HYDROGRAPHIC FEATURES

Gaging Stations—Established as follows: At Friendsville, Md., August 1898; discontinued December 1904. At Confluence, September 1904. At Connellsville, July 1908. At Sutersville, June 1915.

Precipitation—Mean annual, 35 to 55 inches.

NATURAL RESOURCES

Agriculture—The rolling country in lower basin is well adapted to agriculture, but is not extensively farmed; this is particularly so in the coke regions.

Minerals—The most valuable is bituminous coal, which is found in great abundance in the lower basin. Some oil, gas and limestone are found; also clay and sandstone.

Timber—Valuable timber areas are confined to the mountainous regions.

Water Power—There are some good water power sites, but no large ones have been developed, principally on account of the necessity of having to provide large storage works for regulating the extremely irregular stream flow, which works would involve the flooding of large areas of valuable coal lands.

ARTIFICIAL FEATURES

Towns—Confluence (890), Meyersdale (3,741), Berlin (1,336), Rockwood (1,300), Somerset (2,612), Connellsville (12,845), Scottdale (5,456), Mt. Pleasant (5,812), Everson (1,759), West Newton (2,880), Greensburg (13,012), Sutersville (917), Versailles (1,437), McKeesport (42,694).

Industries—Coal mining; coke making; iron and steel mills. Some agriculture is developed in the lower basin, while logging is carried on in the upper basin.

Pollution—Coal mines discharge waste into the streams below Confluence; waste from iron and steel mills causes pollution along the lower course.

Railroads—Baltimore & Ohio traverses basin and follows stream from state boundary to mouth; Pittsburgh & Lake Erie traverses basin and follows stream from Connellsville to mouth; Pennsylvania traverses basin; Western Maryland traverses basin and follows stream from Confluence to Connellsville.

Utilization—Main stream for industrial and domestic supply at McKeesport and Connellsville. Large quantities are used by railroads, coal mines, coke ovens, iron and steel plants and other industries along lower course. The channel is navigable up to Boston, 5 miles above its mouth. It has been proposed by the U. S. Engineers to develop 8-foot navigation up to West Newton. Water power is practically undeveloped. There are small plants at Ohiopyle and New Haven.

YOUNG WOMANS CREEK

Tributary to West Branch Susquehanna River.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Stewardson Township, southeastern Potter County.

Course—Southerly into Clinton County to West Branch Susquehanna River.

Mouth—At North Bend.

Length—Sixteen and one-half miles.

Drainage Area—Contains 90.2 square miles in southeastern Potter, northwestern Lycoming and northern Clinton counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Timber; agriculture.

YOUNG WOMANS CREEK, WEST BRANCH

Tributary to Young Womans Creek.

Sub-basin: Middle West Branch Susquehanna.

NATURAL FEATURES

Source—In Leidy Township, northwestern Clinton County.

Course—Southeasterly to Young Womans Creek.

Mouth—At Italee.

Length—Nine miles.

Drainage Area—Contains 34.1 square miles in middle northern Clinton and southeastern Potter counties.

Topography—Rough and hilly; narrow valleys flanked with steep hills; well wooded.

Channel—Sinuous, through shale and sandstone formations.

Precipitation—Mean annual, 35 to 40 inches.

ARTIFICIAL FEATURES

Towns—Sparsely settled country.

Industries—Timber; agriculture.

ZIMMERMAN RUN (or TEXAS RUN)

For description see Texas Run.

Commonwealth of Pennsylvania

WATER SUPPLY COMMISSION OF PENNSYLVANIA

Water Resources Inventory Report

PART IV

GAZETTEER OF LAKES AND PONDS

ACT OF JULY 25, 1913

HARRISBURG, PA.
WM. STANLEY RAY, STATE PRINTER
1917.

Commonwealth of Pennsylvania

WATER SUPPLY COMMISSION OF PENNSYLVANIA

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WATER SUPPLY COMMISSION OF PENNSYLVANIA

Chairman

*JOHN BIRKINBINE, Cynwyd, Montgomery County
(Died May 14, 1915)

Vice Chairman

**BENJAMIN K. FOCHT, Lewisburg, Union County
(Resigned February 28, 1915)

Secretary

THOMAS J. LYNCH, South Bethlehem, Northampton County

Commissioner of Forestry

ROBERT S. CONKLIN, Columbia, Lancaster County

Commissioner of Health

DR. SAMUEL G. DIXON, Ardmore, Montgomery County

---

*ROBERT A. ZENTMYER, Tyrone, Blair County
(Appointed August 23, 1915, vice John Birkinbine, Deceased)

**OLIVER S. KELSEY, Flemington, Clinton County
(Appointed December 1, 1915, vice Benjamin K. Focht, Resigned)

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LETTER OF TRANSMITTAL

Office of the Water Supply Commission,

Harrisburg, September 20, 1916.

His Excellency, the Governor of the Commonwealth of Pennsylvania:

The Members of the Senate and the House of Representatives of the Commonwealth of Pennsylvania:

Gentlemen: The Water Supply Commission of Pennsylvania respectfully submits herewith Part IV of the Water Resources Inventory Report, entitled "Gazetteer of Lakes and Ponds," which describes in alphabetical order the lakes and ponds in Pennsylvania.

THE WATER SUPPLY COMMISSION OF PENNSYLVANIA.

THOMAS J. LYNCH,
Secretary.

Note: The Commission will be pleased to receive information of Lakes and Ponds of more than 20 acres water surface area, which are not listed in this Gazetteer.

PART IV

GAZETTEER OF LAKES AND PONDS

(The data herein contained were collected during the year 1914, and the conditions described were those then existing.)

INTRODUCTION

The lakes and ponds of Pennsylvania, while found in considerable numbers, are small and are used principally as pleasure resorts or for the harvesting of ice. They are not important factors in controlling the flow of the rivers of the State.

With reference to their origin they may be classified as *natural* and *artificial.* The natural lakes are mostly of glacial origin, having been formed by the scouring out of their basins through the forward movement of the ice sheet; by the irregular distribution of the drift ground moraine; or by the deposition of frontal moraines across existing water courses. Artificial lakes have been formed by the construction of barriers on streams, or by raising the water level in a lake or pond of natural origin; the backwater thus created inundating, in some cases, the bottoms of old lakes whose natural barriers have been eroded or swept away. Reservoirs used for storage for water power or water supply, unless primarily of natural origin, or known as lakes or ponds, are not included in this Gazetteer, but are noted in those portions of the Inventory Report devoted to Water Supply (Part VI) and Water Power (Part VII). Mill ponds and other small bodies of water unless specifically named as lakes or ponds are also omitted.

Lakes and ponds exceeding 20 acres in extent were surveyed, triangulation and stadia methods being used to obtain the surface area and soundings being taken to the nearest foot to determine the depth. Elevations were obtained by different methods. In localities covered by United States Geological Survey topographical maps, these were used in conjunction with barometric readings. In others, the latter only were used, with highway and railroad bench marks as bases. For those lakes which were in close proximity to these bench marks, direct levels were run to secure the elevation to the nearest foot and are given in figures only (as 1250); barometric elevations (Bar.) are so noted.

Two hundred and ninety-three lakes were surveyed, 254 exceeding 20 acres each in extent, the largest being Conneaut Lake in Crawford

County with an area of 928.5 acres, the next in size, Harvey Lake in Luzerne County, with an area of 658.6 acres, with 17 others exceeding 200 acres each.

Table No. 1—Lakes Over 200 Acres in Area

Name	County	Size in Acres
Conneaut Lake,	Crawford,	928.5
Harvey Lake,	Luzerne,	658.6
Lower Shohola Falls Dam or Lake Hilliard,	Pike,	562.9
Pocono Lake,	Monroe,	510.3
Promise Land Pond,	Pike,	422.3
Crystal Lake,	Luzerne,	330.6
Pecks Pond,	Pike,	[illegible]
Lake Jean,	Luzerne-Sullivan,	276.0
Stillwater Lake,	Monroe,	272.2
Lake Carey,	Wyoming,	269.6
Lake Henry,	Wayne,	256.4
Stanton Pond or Lake Ladore,	Wayne,	255.4
Big Brink Pond,	Pike,	[illegible]
Lake Ariel,	Wayne,	[illegible]
Lake Naomi,	Monroe,	251.1
North Jersey Lake,	Monroe-Wayne,	250.2
Conneautte Lake,	Erie,	247.0
Lake Scranton,	Lackawanna,	235.2
Porters Lake,	Pike,	224.0

Geographically the lakes and ponds of Pennsylvania of 20 acres or over, listed in this Gazetteer, are found principally in the northeastern portion, the counties of Wayne, Susquehanna, Pike, Lackawanna, Luzerne, Monroe, Wyoming, Sullivan and Bradford containing 95 per cent of the total number and 90 per cent of the total acreage; the remainder, with the exception of one each in Carbon, Dauphin, Fayette and York are located in the northwestern part, in Crawford, Erie and Mercer counties.

The distribution and total surface area in each county are shown in Table No. 2.

Table No. 2—Distribution and Acreage of Lakes Over 20 Acres by Counties

County	Number	Total Lake Area in Acres
Bradford,	5	192.5
Carbon,	1	110.0
Crawford,	4	1,206.0
Dauphin,	1	135.7
Erie,	3	377.9
Fayette,	1	77.0
Lackawanna,	26	1,965.4
Luzerne,	20	2,459.3
Mercer,	2	170.6
Monroe,	19	2,226.4
Pike,	41	4,696.6
Sullivan,	6	461.1
Susquehanna,	44	2,064.5
Wayne,	73	4,790.4
Wyoming,	9	813.9
York,	1	24.2
Total,	256	21,759.3

CONNEAUT LAKE, CRAWFORD COUNTY.

Two views of Conneaut Lake, Crawford County
(See page 9)

The total lake area listed in this gazetteer is less than one-tenth of one per cent of that of the State. The greatest area of lake surface is found in Wayne County, the next (almost equal) is in Pike County, the third is in Luzerne County with about one-half that of Wayne. Of the total lake area in the State, between one-third and one-half is in the two first-named counties.

By reason of the location of these lakes and ponds near the headwaters of small streams, the tributary drainage area is limited and in like manner and to a like extent the opportunity to secure storage for water power, water supply or stream regulation. These lakes which lie near growing towns may be utilized for water supply to a moderate extent, but even here the risk of pollution of the water is such as to render the experiment of doubtful value, while the multiplication of pleasure resorts and the increasing demands for camping and outing purposes have caused an increase in land values already sufficient to render many otherwise promising ventures commercially uninviting. Ice harvesting and the subsequent shipment of the crop is a leading industry about many of these lakes and ponds, the extent of the business in Monroe County justifying the use of modern methods and the large cities within easy transportation distance furnishing satisfactory markets.

A bill was presented to the General Assembly of 1913, carrying an appropriation and providing for the purchase by the State of lakes and ponds, evidently with the idea that they should be preserved in connection with parks for the use of the public. While the bill failed of passage, it is believed that the project is worthy of future consideration and sufficient warrant for immediate action lies in the fact that the value of these lakes is rapidly rising.

In the following pages are listed 424 lakes and ponds with a total surface area of 23,531.3 acres. Those of 20 acres or more area are described in detail, while 168 smaller ones are covered in less detail. For convenience, they are arranged alphabetically in gazetteer form.

ADAMS LAKE

Location—East central Buckingham Township, northeastern Wayne County, on small branch of Delaware River, Upper Delaware Subbasin.

Type—Natural.

Elevation—1220 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—13.0 acres.

ADAMS POND; also called WILLIAMS LAKE

Location—Central Berlin Township, east central Wayne County, on branch of Mast Hope Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 3.6 square miles.

Elevation—1255 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Irregular; maximum length 4,060 feet; maximum width 1,400 feet.

Area—83.0 acres.

Capacity—491 acre-feet or 160,000,000 gallons.

Depth—Prevailing 12 feet; maximum 23 feet.

Dam—Dry stone wall, 100 feet long, 14 feet high, faced with concrete. A spillway is provided.

Topography—Gradually rising ground on all sides reaching maximum height of 40 feet. One side exceedingly swampy; public road parallels another side. About 50% of surrounding country covered with second growth timber, 50% cultivated. Old mill and dwelling below dam on outlet.

Inlet—Fed by springs.

Outlet—Branch of Mast Hope Creek, 10 feet wide, 2 feet deep, flowing through rocky channel.

Utilization—Private ice supply and summer resort; originally used as water power for sawmill.

Navigation—Rowboats.

Opportunity for Storage—Good; high, steep banks at outlet.

Ownership—A. J. Williams, Beachlake, claims control.

AFTON LAKE

Location—East central Lower Makefield Township, east central Bucks County, on Headley Creek, Middle Delaware Sub-basin.

Area—Approximately 5 acres.

ALPHYS POND

Location—West central Paupack Township, southeastern Wayne County on branch of Lakeville Creek, Upper Delaware Sub-basin.

Type—Artificial.

Elevation—1290 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—16.4 acres.

ANALOMINK LAKE; old name BRAYS LAKE

Location—Northern Stroud Township, east central Monroe County, on branch of Brodheads Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.0 square mile.

Elevation—638 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular, long and narrow, maximum length 2,120 feet, maximum width 590 feet.

Area—21.3 acres.

Capacity—70 acre-feet or 23,000,000 gallons.

Depth—Prevailing 5 feet; maximum 9 feet.

Dam—Vertical dry stone wall 285 feet long, 11 feet high, backed with earth and stone fill. A concrete and masonry spillway provided.

Topography—Surrounding hills rising gradually from water edge to maximum height of 80 feet; 90% covered with second growth timber and brush, 10% under cultivation.

Inlet—Small stream, 6 feet wide, 6 inches deep, flowing through swampy ground near lake. Several other small streams drain into lake but are dry during summer months.

Outlet—Small stream, 12 feet wide, one foot deep, flows through rocky ravine one mile to its confluence with Brodheads Creek.

Utilization—Ice harvesting.

Navigation—Rowboats.

Opportunity for Storage—None; low land around inlet of lake, only four feet difference in elevation between water surface and top of divide, a short distance away.

Ownership—The Analomink Ice Co.

ANGLEWOOD LAKE

Location—Western Tobyhanna Township, northwestern Monroe County, on Wagners Branch Creek, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 0.9 square mile.

Elevation—1696 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, irregular, maximum length 3,200 feet; maximum width 1,110 feet.

Area—47.2 acres.

Capacity—211 acre-feet or 69,000,000 gallons.

Depth—Prevailing 6 feet; maximum 14 feet.

Dam—Earth and stone embankment about 650 feet long, maximum height 20 feet. A stone spillway and timber sluiceway provided.

Topography—Lake surrounded generally by low, flat ground rising to a maximum height of 125 feet on north side; 60% covered with second growth timber, 40% under cultivation. Ice house, dwelling, barn and several sheds 5 to 15 feet above water surface.

Inlet—Wagners Branch Creek, 10 feet wide, 2 feet deep, flowing through rocky channel, free of debris; also fed by springs.

Outlet—Wagners Branch Creek, 15 feet wide, 2 feet deep, flowing through rocky channel, full of debris.

Utilization—Ice harvesting, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—J. W. Carroll & Co. claims control.

AQUATON LAKE

Location—At Ingham Springs, central Solebury Township, east central Bucks County, Middle Delaware Sub-basin.

Area—Approximately 15 acres.

ARIEL LAKE

Location—Central Lake Township, southwestern Wayne County, on Ariel Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 3.4 square miles.

Elevation—1410 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, very irregular; maximum length 8,050 feet; maximum width 2,350 feet.

Area—252.2 acres.

Capacity—4,116 acre-feet or 1,341,000,000 gallons.

Depth—Prevailing 28 feet; maximum 42 feet.

Dam—None.

Topography—Surrounding country generally low, rising to maximum height of approximately 60 feet; about 50% covered with second growth timber, 50% cultivated. Public road parallels two sides of lake. Numerous summer cottages, hotels and boat houses, also several ice houses, along shore; village of Ariel near lake.

Inlet—Ariel Creek, 4 feet wide, 6 inches deep, flowing through open channel. Also fed by springs.

Outlet—Ariel Creek, 12 feet wide, one foot deep, flowing through rocky channel.

Utilization—Ice harvesting and summer resort.

Navigation—Motor boats and rowboats.

Opportunity for Storage—None; low ground and valuable real estate improvements around shore.

Ownership—Several persons claim control.

ARTHUR, LAKE (See BIG POND)

BAIRDS LAKE (See GORMAN POND)

BALL POND

Location—Northern Ararat Township, east central Susquehanna County, on West Branch Lackawanna River, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Elevation—1983 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—15.4 acres.

BARKLEY LAKE (See GORMAN POND)

BARMORE LAKE

Location—Southwestern Pine Township, southeastern Mercer County, on Barmore Run, Main Ohio Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.0 square mile.

Elevation—1231 (Bar.) referred to U. S. G. S. datum.

Shape—Very irregular; maximum length 2,275 feet; maximum width 820 feet.

Area—20.9 acres.

Capacity—86 acre-feet or 28,000,000 gallons.

Depth—Prevailing 6 feet; maximum 8 feet.

Dam—Earth and stone embankment, 12 feet high, with concrete core wall. Spillway 25 feet long provided.

Topography—Generally low ground rising gradually on all sides, reaching a maximum height of 60 feet; approximately 10% covered with second growth timber, 90% cultivated. One end of lake slightly marshy. Public road parallels one side. Two cottages on shore 25 feet above water surface.

Inlet—Small stream 2 feet wide, 1 foot deep, flowing through marshy ground. Fed principally by springs.

Outlet—Barmore Run, 12 feet wide, 3 feet deep, flowing through clean channel.

Utilization—Ice harvesting and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good; high banks at outlet.

Ownership—Barmore Lake Park Assn., Grove City, claims control, not limited to shore line. Grove City Ice Co. leases water rights for ice purposes.

BASSETTS POND or BASSETT, LAKE

Location—Central Benton Township, northwestern Lackawanna County, on tributary of South Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural; dam flooded considerable additional area.

Drainage Area—Approximately 0.4 square mile.

Elevation—1210 (Bar.) referred to U. S. G. S. datum.

Shape—Oval, irregular; maximum length 2,420 feet; maximum width 1,400 feet.

Area—39.8 acres.

Capacity—501 acre-feet or 163,000,000 gallons.

Depth—Prevailing 22 feet; maximum 42 feet.

Dam—Vertical dry stone wall about 50 feet long, 6 feet high, backed with earth and stone fill. Stone spillway provided.

Topography—Land on two sides rises gradually to maximum height of 150 feet; approximately 20% covered with second growth timber, 80% under cultivation. Other sides of lake low and marshy. One dwelling on shore 15 feet above water surface.

Inlet—Fed by springs.

Outlet—Tributary of South Branch Tunkhannock Creek, 10 feet wide, one foot deep, flowing through rocky channel, free of debris.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Private control.

BAYLETT POND

Location—West central Terry Township, southeastern Bradford County, on branch of Sugar Run Creek, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 8 acres.

BAYLOR POND (See FINN POND)

BEAN POND (See BOWMANS POND)

BEAN POND (See MT. SPRING DAM NO. 2)

BEAR CREEK ICE CO'S. DAM NO. 1

Location—Central Bear Creek Township, east central Luzerne County, on Bear Creek, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 31.5 square miles.

Elevation—1570 (Bar.) referred to U. S. G. S. datum.

Shape—Long and regular; maximum length 3,830 feet; maximum width 1,000 feet.

Area—63.4 acres.

Capacity—357 acre-feet or 116,000,000 gallons.

Depth—Prevailing 10 feet; maximum 20 feet.

Dam—Timber-crib, 315 feet long, 17 feet high, with earth and stone fill. Timber spillway 165 feet by 3 feet with sluiceway in center provided for regulation of height of water.

Topography—Lake lies between two ranges of hills, rising gradually to maximum height of 200 feet. Railroad parallels one side, 15 feet above water surface. Public road on opposite side, 6 feet above water surface. Practically entire surrounding country covered with second growth timber. Two ice houses and six boat houses on shore 1 to 6 feet above water surface; 6 summer cottages on outlet below dam.

Inlets—Bear Creek, 22 feet wide, 2 feet deep, flowing through clean rocky channel. Small stream 8 feet wide, 1 foot deep, flowing through clean gravelly channel.

Outlet—Bear Creek, 30 feet wide, 2 feet deep, flowing through clean rocky channel.

Utilization—Ice harvesting and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Bear Creek Ice Co., Bear Creek, claims control.

BEAR CREEK ICE CO'S. DAM NO. 2

Location—Central Bear Creek Township, east central Luzerne County, on Bear Creek, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 21.3 square miles.

Elevation—1600 (Bar.) referred to U. S. G. S. datum.

Shape—Irregular; maximum length 1,710 feet; maximum width 600 feet.

Area—20.0 acres.

Capacity—99 acre-feet or 32,000,000 gallons.

Depth—Prevailing 9 feet; maximum 12 feet.

Dam—Timber-crib 250 feet long, 20 feet high, with earth and stone fill. A timber spillway, 200 feet long by 2 feet deep.

Topography—Hills on three sides rising to maximum height of 200 feet. Railroad parallels one side and public road the opposite side from 10 to 15 feet above water surface. One ice house and a farm house on shore, 30 feet above water surface. About 75% of surrounding country covered with second growth timber, 25% under cultivation.

Inlet—Bear Creek, 25 feet wide, 1 foot deep, flowing through rocky channel, free of debris.

Outlet—Bear Creek, 20 feet wide, 2 feet deep, flowing through rocky channel, free of debris.

Utilization—Ice harvesting.

Navigation—Rowboats.

Opportunity for Storage—None, due to character of ground at outlet.

Ownership—Bear Creek Ice Co., Bear Creek, claims control.

BEAR CREEK ICE CO'S. DAM NO. 3

Location—Northern Bear Creek Township, east central Luzerne County, on Bear Creek, Middle Delaware Sub-basin.

Type—Artificial.

Elevation—1615 (Bar.) referred to U. S. G. S. datum.

Area—15.4 acres.

BEAR CREEK ICE CO'S. DAM NO. 4

Location—Northeastern Bear Creek Township, east central Luzerne County, on Meadow Run, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 2.0 square miles.

Elevation—1995 (Bar.) referred to U. S. G. S. datum.

Shape—Very irregular; maximum length 3,050 feet; maximum width 730 feet.

Area—33.4 acres.

Capacity—292 acre-feet or 95,000,000 gallons.

Depth—Prevailing 12 feet; maximum 17 feet.

Dam—Vertical dry stone wall, 325 feet long, 15 feet high, backed with earth and stone fill. Spillway, 20 feet long, 3.5 feet deep, and outlet flume provided for regulation of height of water.

Topography—Low ground on all sides rising gradually from water edge, reaching maximum height of 200 feet on east side, approximately 75% wooded with second growth timber, 25% under cultivation. Railroad and public road parallel one side, 3 to 5 feet above water surface. One ice house and dwelling approximately 12 feet above water surface.

Inlet—Meadow Run, 4 feet wide, 6 inches deep, flowing through clean channel.

Outlet—Meadow Run, 6 feet wide, 6 inches deep, flowing through clean channel.

Utilization—Ice harvesting and boating.

Navigation—Rowboats.

Opportunity for Storage—Could be increased slightly but would flood valuable property.

Ownership—Bear Creek Ice Co., Bear Creek, claims control.

BEAR CREEK ICE CO'S. DAM NO. 5; old name, BEAR LAKE

Location—Northeastern Bear Creek Township, east central Luzerne County, on Meadow Run, Middle Delaware Sub-basin.

Type—Originally natural.

Drainage Area—Approximately 1.4 square miles.

Elevation—2005 (Bar.) referred to U. S. G. S. datum.

Shape—Irregular; maximum length 3,330 feet; maximum width 1,060 feet.

Area—57.3 acres.

Capacity—615 acre-feet or 200,000,000 gallons.

Depth—Prevailing 9 feet; maximum 14 feet.

Dam—Vertical dry stone wall, 450 feet long, 18 feet high, backed with earth and stone fill. Circular outlet flume.

Topography—Lake lies between two ranges of hills rising gradually to maximum height of 100 feet. Two ice houses on shore. Entire surrounding country covered with second growth timber.

Inlet—Meadow Run, 3 feet wide, 6 inches deep, flowing through clean channel.

Outlet—Meadow Run, 4 feet wide, 6 inches deep, flowing through clean channel.

Utilization—Ice harvesting.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Bear Creek Ice Co., Bear Creek, claims control.

BEAR LAKE (See page 30)

Location—Central Lehigh Township, south central Lackawanna County, on Pond Creek, Middle Delaware Sub-basin.

Type—Originally natural; dam flooded small additional area.

Drainage Area—Approximately 1.8 square miles.

Elevation—1870 (Bar.) referred to U. S. G. S. datum.

Shape—Very irregular; maximum length 4,915 feet; maximum width 2,935 feet.

Area—134.6 acres.

Capacity—1,612 acre-feet or 525,000,000 gallons.

Depth—Prevailing 18 feet; maximum 30 feet.

Dam—Concrete, 15 feet long, 4 feet high.

Topography—Surrounding country rises gradually to maximum height of 200 feet; approximately 90% covered with second growth timber, 10% under cultivation. Forty summer cottages, one lodge and six boat houses located on shore of lake 1 to 20 feet above water surface.

Inlet—Fed by springs.

Outlet—Pond Creek, 8 feet wide, 1 foot deep, flowing through rocky channel, free of debris.

Utilization—Private ice and water supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low land at outlet.

Ownership—Bear Lake Assn., Wilkes-Barre, claims control.

BEAR LAKE

Location—Northwestern Freehold Township, northwestern Warren County, on branch of Little Brokenstraw Creek, Upper Allegheny Sub-basin.

Area—Approximately 11 acres.

BEAVER DAM

Location—North central Buckingham Township, north central Wayne County, on small branch of Delaware River, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1290 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—11.0 acres.

BEAVER LAKE

Location—Northern Blooming Grove Township, central Pike County, on branch of Shohola Creek, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1414 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—18.7 acres.

BEAVER LAKE

Location—Northeastern Penn Township, east central Lycoming County, on branch of Beaverdam Run, Lower West Branch Susquehanna Sub-basin.

Area—Approximately 6 acres.

BEAVER POND or LOBEZ POND

Location—North Preston Township, northwestern Wayne County, on Starrucca Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 6.9 square miles.

Elevation—1515 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Long and irregular; maximum length 2,115 feet; maximum width 575 feet.

Area—20.3 acres.

Capacity—35 acre-feet or 11,000,000 gallons.

Depth—Prevailing 3 feet; maximum 6 feet.

Dam—Vertical dry stone wall, 100 feet long, 12 feet high, backed with earth and stone fill. Timber stop-log sluiceway controls head of about 10 feet.

Topography—Pond lies between two ranges of hills rising rapidly from water edge. Approximately 50% of surrounding country covered with second growth timber, 50% under cultivation.

Inlet—Starrucca Creek, 3 feet wide, flowing through marshy ground. Also fed by springs.

Outlet—Starrucca Creek, 7 feet wide, flowing through open channel.

Utilization—Private ice supply and boating. Originally used as power for mill.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—A. Lobez, Shehawken, claims control.

BEAVER DAM LAKE

Location—Central Delaware Township, south central Pike County, on Dingmans Creek, Upper Delaware Sub-basin.

Type—Artificial.

Elevation—1174 (Bar.) referred to U. S. G. S. datum.

Shape—Long and narrow, irregular, approximately 1500 feet long, maximum width 225 feet.

Area—Approximately 10 acres.

BEAVER MEADOW DAM (See BELMONT LAKE)

BEAVER RUN CLUB DAM

Location—Central Porter Township, south central Pike County, on Big Bushkill Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—31.0 square miles.

Elevation—1215 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, irregular, maximum length 5,320 feet; maximum width 1,145 feet.

Area—78.0 acres.

Capacity—609 acre-feet or 199,000,000 gallons.

Depth—Prevailing 6 feet; maximum 11 feet.

Dam—Timber-crib, approximately 35 feet long, 6 feet high, with earth and stone fill; all spillway.

Topography—Lake is part of swampy ground with snags and stumps protruding above water surface. Ground on all sides rises abruptly, reaching maximum height of 100 feet; practically covered with second growth timber. Club house and barn located near lake, 15 to 20 feet above water surface. Boat houses at water edge.

Inlets—Big Bushkill Creek, 30 feet wide, 1 to 3 feet deep, flowing through rocky channel full of debris. Beaver Run, 8 feet wide, 1 foot deep, flowing through marshy ground.

Outlet—Big Bushkill Creek, 30 feet wide, 1 to 3 feet deep, flowing through rocky channel full of debris.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Could be increased; high banks at outlet.

Ownership—Beaver Run Club claims control.

BEECH LAKE

Location—North Berlin Township, east central Wayne County, on Mast Hope Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—2.2 square miles.

Elevation—1420 (Bar.) referred to State Highway Department levels rom U. S. G. S. datum.

Shape—Long, very irregular; maximum length 4,900 feet; maximum width 2,000 feet.

Area—110.6 acres.

Capacity—1,191 acre-feet or 388,000,000 gallons.

Depth—Prevailing 19 feet; maximum 26 feet.

Dam—None.

Topography—Surrounding country generally low, rising on south side to maximum height of 40 feet; 50% covered with second growth timber and brush, 50% under cultivation. Six cottages on shore and small village located near lake.

Inlet—Mast Hope Creek, 4 feet wide, 1 foot deep, flowing through marshy ground.

Outlet—Mast Hope Creek, 4 feet wide, 1 foot deep, flowing through rocky channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Oportunity for Storage—None; flat country at outlet.

Ownership—Private control.

BEECH POND (LITTLE)

Location—Northeastern Berlin Township, east central Wayne County, on branch of Mast Hope Creek, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1385 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—16.6 acres.

BEECHES POND

Location—Central Dimock Township, central Susquehanna County, on branch of Meshoppen Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 3 acres.

BELLE, LAKE

Location—Eastern Greene Township, west central Pike County, on branch of Wells Creek, Upper Delaware Sub-basin.

Type—Originally natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1617 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, regular; maximum length 2,625 feet; maximum width 935 feet.

Area—40.1 acres.

Capacity—502 acre-feet or 164,000,000 gallons.

Depth—Prevailing 18 feet; maximum 30 feet.

Dam—Old dilapidated timber dam.

Topography—Lake lies in small valley in mountains, ground rising steeply on two sides, reaching maximum height of approximately 250 feet. Surrounding country densely wooded with second growth timber and brush. One fishermen's shelter on shore 5 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Wells Creek, 4 to 6 feet wide, 6 inches deep, flowing through rocky channel full of debris.

Utilization—Private boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Blooming Grove Hunting & Fishing Club claims control.

BELMONT LAKE or BEAVER MEADOW DAM

Location—Northern Mount Pleasant Township, northwestern Wayne County, on West Branch Lackawaxen River, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 0.8 square mile.

Elevation—1795 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Long, rather irregular; maximum length 5,300 feet; maximum width 1,405 feet.

Area—100.2 acres.

Capacity—493 acre-feet or 161,000,000 gallons.

Depth—Prevailing 10 feet; maximum 13 feet.

Dam—Vertical dry stone wall, 450 feet long, 25 feet high, backed with earth and stone fill. Concrete spillway 7 feet wide by 10 feet deep, with stop-logs.

Topography—Surrounding country generally low, rising to a maximum height of 30 feet; covered with second growth timber. Stumps and snags protruding above the water surface of lake.

Inlet—Fed by springs.

Outlet—West Branch Lackawaxen River, 10 feet wide, flowing swiftly through rocky channel.

Utilization—Stock pond of State Fishery. Originally used as feeder for D. & H. Canal.

Navigation—None.

Opportunity for Storage—Could be increased; high banks at outlet.

Ownership—Commonwealth of Pennsylvania, under jurisdiction of Department of Fisheries.

BIDWELL POND

Location—Central Salem Township, southwestern Wayne County, on branch of Wallenpaupack Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 3.6 square miles.

Elevation—1430 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 3,060 feet; maximum width 1,770 feet.

Area—70.5 acres.

Capacity—1,508 acre-feet or 491,000,000 gallons.

Depth—Prevailing 41 feet; maximum 50 feet.

Dam—None at present; old dam destroyed.

Topography—High ground on all sides rising gradually from water edge reaching maximum height of 100 feet. Entire surrounding country covered with second growth timber. Two summer cottages on shore.

Inlet—Branch of Wallenpaupack Creek, 6 feet wide, 1 foot deep, flowing through open channel.

Outlet—Branch of Wallenpaupack Creek, 15 feet wide, 2 feet deep, flowing through open channel.

Utilization—Private ice supply, summer resort and Y. M. C. A. camp site.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Private control.

BIG POND or HARMONY, LAKE

Location—Northeastern Kidder Township, northeastern Carbon County, on headwaters of branch of Tunkhannock Creek, Middle Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 2.8 square miles.

Elevation—1630 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and triangular, irregular; maximum length 4,900 feet; maximum width 2,000 feet.

Area—110.0 acres.

Capacity—1,342 acre-feet or 437,000,000 gallons.

Depth—Prevailing 22 feet; maximum 31 feet.

Dam—None.

Topography—Surrounding country low with few hills, ground rising gradually reaching maximum height of approximately 60 feet. Practically entire watershed covered with second growth timber. Fourteen summer cottages and six ice houses, 5 to 30 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Tunkhannock Creek, 10 feet wide, 1 foot deep, flowing through marshy ground, channel strewn with debris.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Could be increased due to topography at outlet, but with considerable damage to roads and cottages.

Ownership—Private control.

BIG POND or FAIRVIEW, LAKE; also called ARTHUR, LAKE and JONES LAKE

Location—Eastern Palmyra Township, northwestern Pike County, on Blooming Grove Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.6 square miles.

Elevation—1521, referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 5,600 feet; maximum width 2,760 feet.

Area—194.8 acres.

Capacity—3,678 acre-feet or 1,198,000,000 gallons.

Depth—Prevailing 26 feet; maximum 49 feet.

Dam—Timbers, resting against abutments of highway bridge, backed with earth fill, 13 feet long, 2 feet high. Entire length of dam is spillway.

Topography—Hills on all sides rising gradually to maximum height of approximately 125 feet; 98% covered with second growth timber, 2% under cultivation. Boat houses and summer cottages located around shore, 2 to 15 feet above water surface.

Inlet—Small stream, 4 feet wide, 1 foot deep, flowing through slightly marshy ground. Fed principally by springs.

Outlet—Blooming Grove Creek, 15 feet wide, 1 to 2 feet deep, flowing through gravelly channel free of debris.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Could be increased, but with damage to valuable property around lake.

Ownership—Several real estate companies, and persons claim control.

BIGELOW LAKE

Location—North central Mount Pleasant Township, northwestern Wayne County, on Johnson Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 2.0 square miles.

Elevation—1560 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Triangular, irregular; maximum length 2,210 feet; maximum width 970 feet.

Area—36.0 acres.

Capacity—397 acre-feet or 129,000,000 gallons.

Depth—Prevailing 22 feet; maximum 24 feet.

Dam—None.

Topography—Surrounding country slopes gradually to water edge; about 50% covered with second growth timber, 50% under cultivation.

Inlet—Johnson Creek, 4 feet wide, flowing through clean channel.

Outlet—Johnson Creek, 4 feet wide, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Could be increased.

Ownership—Several persons claim control.

BIGSBYS POND

Location—Southeastern Middletown and northeastern Rush townships, west central Susquehanna County, on tributary of Middle Branch Wyalusing Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Elevation—1342 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—15.7 acres.

BILLINGS POND

Location—North central Wyalusing Township, east central Bradford County, on small branch of Wyalusing Creek, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 3 acres.

BILLINGS POND

Location—Central Blooming Grove Township, west central Pike County, on Brushy Bridge Run, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 2.3 square miles.

Elevation—1321 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 3,285 feet; maximum width 815 feet.

Area—42.5 acres.

Capacity—93 acre-feet or 30,000,000 gallons.

Depth—Prevailing 4 feet; maximum 7 feet.

Dam—Timber-crib, 109 feet long, 9 feet high, with earth and stone fill. A timber spillway 15 feet by 1 foot.

Topography—Entire water surface area and watershed covered with timber and stumps. Surrounding country generally low, rising, however, on north to maximum height of approximately 100 feet.

Inlet—Brushy Bridge Run, 9 feet wide, 1 foot deep, flowing through marshy ground.

Outlet—Brushy Bridge Run, 10 to 12 feet wide, 1 foot deep, flowing through rocky channel strewn with debris.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Several persons claim control.

BIRDS POND

Location—Northwestern Madison Township, east central Lackawanna County, on tributary of West Branch of Wallenpaupack Creek, Upper Delaware Sub-basin.

Area—Approximately 7 acres.

BLACK POND

Location—Central Sheshequin Township, central Bradford County, on Mill Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 0.8 square mile.

Elevation—1255 (Bar.) referred to L. V. R. R. levels.

Shape—Oval, regular; maximum length 1,800 feet; maximum width 825 feet.

Area—26.7 acres.

Capacity—156 acre-feet or 51,000,000 gallons.

Depth—Prevailing 10 feet; maximum 14 feet.

Dam—Dry masonry wall, 180 feet long, 12 feet high with earth and stone fill. Wooden box-culvert outlet provided.

Topography—Hills on three sides rising gradually from water edge to maximum height of 150 feet. Public road follows one side, 10 to 20 feet above water surface. Entire surrounding country under cultivation. Several farm houses near lake, 20 to 30 feet above water surface.

Inlet—Mill Creek, 3 feet wide, 6 inches deep, flowing through clean channel.

Outlet—Mill Creek, 4 feet wide, 6 inches deep, flowing over gravel bed, free of debris with good fall.

Utilization—Boating, fishing and private ice supply.

Navigation—Rowboats.

Opportunity for Storage—Good, due to topography at outlet.

Ownership—J. H. Shores Est., Towanda, claims control.

BLACKS POND

Location—South central Liberty Township, south central Tioga County, on Blacks Creek, Middle West Branch Susquehanna Sub-basin.

Area—Approximately 6 acres.

BLANDING LAKE

Location—Northeastern Harford Township, central Susquehanna County, on branch of Butler Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Elevation—1504 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—14.3 acres.

BLYTHEBURN DAM

Location—Northeastern Butler Township, south central Luzerne County, on branch of Nescopeck Creek, Lower North Branch Susquehanna Sub-basin.

Area—Approximately 15 acres.

BLYTHEBURN LAKE DAM

Location—West central Wright Township, central Luzerne County, on branch of Little Wapwallopen Creek, Lower North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 0.5 square mile.

Elevation—1150 referred to U. S. G. S. datum.

Area—45.0 acres.

Capacity—Estimated, 60,000,000 gallons.

Dam—Earthen embankment, 520 feet long, 10 feet maximum height, with concrete core-wall. Spillway and outlet pipe provided.

Topography—Surrounded by flat table-land partly cultivated, partly wooded.

Inlet—Tributary to Little Wapwallopen Creek.

Outlet—Tributary to Little Wapwallopen Creek.

Utilization—Pleasure purposes and boating.

Navigation—Rowboats.

Opportunity for Storage—None; low surrounding ground.

Ownership—Thomas and Welles, claim control.

BONE POND or SUMMIT LAKE

Location—West central Preston Township, northwestern Wayne County, on small tributary of East Branch Lackawanna River, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.1 square mile.

Elevation—2040 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Oval, regular; maximum length 3,050 feet; maximum width 705 feet.

Area—38.4 acres.

Capacity—271 acre-feet or 88,000,000 gallons.

Depth—Prevailing 14 feet; maximum 18 feet.

Dam—None.

Topography—Surrounded by low marshy ground; maximum rise about 20 feet; practically all under cultivation. One ice house on shore and Borough of Poyntelle on high ground nearby.

Inlet—Fed by springs.

Outlet—Tributary East Branch of Lackawanna River, 7 feet wide, flowing through channel full of debris.

Utilization—Ice harvesting, summer resort and local water supply.

Navigation—Rowboats.

Opportunity for Storage—None due to N. Y. O. & W. R. R.

Ownership—Poyntelle & Orson Ice Co. claims control.

BOWMANS POND or BEAN POND

Location—Northwestern Ross Township, northwestern Luzerne County, on North Branch Bowman Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Area—11.6 acres.

BOYDS POND

Location—Southwestern Damascus Township, east central Wayne County, on Calkins Creek, Upper Delaware Sub-basin.

Type—Artificial.

Elevation—1510 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—18.3 acres.

BRAYS LAKE (See ANALOMINK LAKE)

BREECHES POND (See WINOLA, LAKE)

BREWSTER LAKE

Location—Southern Bridgewater Township, central Susquehanna County, on branch of Meshoppen Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 12 acres.

BRIGHT POND

Location—Northern Tobyhanna Township, northwestern Monroe County, on branch of Tobyhanna Creek, Middle Delaware Sub-basin.

Type—Natural.

Area—Approximately 7 acres.

Bear Lake, Lackawanna County
(See page 19)

Comforts Pond, Susquehanna County
(See page 45)

BRINK PONDS, BIG and LITTLE; also called TWIN LAKES

Location—Southern Shohola Township, east central Pike County, on Big Pond Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 2.7 and 2.9 square miles respectively.

Elevation—1,340, referred to U. S. G. S. datum.

Shape—Oval, irregular; maximum lengths, 4,600 feet and 2,315 feet respectively; maximum widths 3,465 feet and 1,290 feet respectively.

Area—253.2 and 41.2 acres respectively.

Capacity—3802 and 584 acre-feet or 1,239,000,000 and 190,000,000 gallons respectively.

Depth—Prevailing 20 and 24 feet respectively; maximum 27 and 43 feet respectively.

Dam—Vertical dry stone wall, 100 feet long, 5 feet high, backed with earth and stone fill. A concrete outlet opening with wooden gate provides for regulation of height of water; the water can be regulated for an additional height of 5 feet.

Topography—Ground rises gradually to maximum height of 200 feet. Approximately all surrounding country covered with second growth timber. One hotel, several cottages and an ice house located near Little Brink Pond, all from 6 to 20 feet above water surface.

Inlet—Fed by springs; also small stream, 10 feet wide, 1 to 2 feet deep, flows through marshy ground into Big Brink Pond.

Outlet—Ponds are connected by artificial canal 5 feet wide, 1 foot deep and 125 feet long, spanned by wooden bridge. Big Pond Creek, 4 feet wide, 1.5 feet deep, with good slope drains Big Brink Pond. It is claimed that there is subterranean connection between these ponds.

Utilization—Private ice supply, private summer home, and regulation of Pond Creek which supplies water to stone cutting works, 5 miles below at Parkers Glen.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Private control. Mr. Kilgore, owner of stone cutting works, controls water right for storage and supply.

BROOKLAND POND

Location—Ulysses Township, northeastern Potter County, Middle West Branch Susquehanna Sub-basin.

Area—Approximately 2 acres.

BROWNS POND or PERRINS MARSH

Location—Partly in northwestern Franklin Township, northeastern Luzerne County and partly in southern Northmoreland Township, southeastern Wyoming County, on branch of North Branch Susquehanna River, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.9 square miles.

Elevation—1100 (Bar.) referred to U. S. G. S. datum.

Shape—Oval, rather irregular; maximum length 2,370 feet; maximum width 1,585 feet.

Area—65.6 acres.

Capacity—215 acre-feet or 70,000,000 gallons.

Depth—Prevailing 5 feet; maximum 8 feet.

Dam—Vertical dry stone wall, 200 feet long, 14 feet high, backed with earth and stone. A spillway provided, 50 feet by 1 foot.

Topography—Gradually rising ground on three sides reaching maximum height of 150 feet. Two sides of lake marshy and full of stumps; public road parallels two sides approximately 1 foot to 40 feet above water surface. Almost all surrounding country covered with second growth timber. Two farm houses near pond, approximately 20 feet above water surface.

Inlet—Branch of North Branch Susquehanna River, 3 feet wide, 6 inches deep, flowing through marshy, debris-filled channel. Also fed by springs.

Outlet—Branch of North Branch Susquehanna River, 8 feet wide, 6 inches deep, flowing swiftly through clean rocky channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Several persons claim control.

BRUCE, LAKE; old name ROOTS POND

Location—Western Blooming Grove Township, west central Pike County, on branch of Shohola Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.6 square mile.

Elevation—1821 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Rectangular, irregular, maximum length 2,520 feet; maximum width 1,070 feet.

Area—47.6 acres.

Capacity—347 acre-feet or 113,000,000 gallons.

Depth—Prevailing 10 feet; maximum 20 feet.

Dam—None.

Topography—Lake near top of ridge of hills; gradually rising ground on three sides, reaching maximum height of 75 feet. Entire surrounding country covered with second growth timber.

Inlet—Fed by springs.

Outlet—Branch of Shohola Creek, 10 feet wide, 1 foot to 1.5 feet deep, flowing through marshy ground for short distance from lake.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Commonwealth of Pennsylvania and Blooming Grove Hunting and Fishing Club.

BRUNSONS POND

Location—Western South Canaan Township, west central Wayne County, on branch of Middle Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 3.3 square miles.

Elevation—1350 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Circular, very irregular; approximate diameter 1,700 feet.

Area—54.2 acres.

Capacity—382 acre-feet or 124,000,000 gallons.

Depth—Prevailing 12 feet; maximum 20 feet.

Dam—Timber-crib, 100 feet long, 10 feet high, with earth and stone fill; all spillway.

Topography—Generally low and flat ground on three sides. On north, ground rises gradually to height of 150 feet. Two sides of lake are exceedingly marshy. Entire surrounding country covered with second growth timber. One building below dam on outlet.

Inlet—Fed by springs.

Outlet—Branch of Middle Creek, 8 feet wide, 6 inches deep, flowing through rocky channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet and low ground surrounding lake.

Ownership—J. W. Brunson, R. F. D., Waymart, claims control.

BUNNELLS POND

Location—Northeastern Texas Township, central Wayne County, on Carley Brook, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 12.3 square miles.

Elevation—980 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, regular; maximum length 3,300 feet; maximum width 890 feet.

Area—46.3 acres.

Capacity—174 acre-feet or 57,000,000 gallons.

Depth—Prevailing 10 feet; maximum 14 feet.

Dam—Stone masonry, 180 feet long, 12 feet high. Concrete spillway, 60 feet by 5 feet, and flume, 6 feet by 3 feet, provide regulation.

Topography—Surrounding country under cultivation, rising rapidly from water edge to maximum height of 80 feet. Public road parallels one side 4 feet above water surface. Slightly marshy at inlet. Three ice houses, six dwellings and other buildings near shore.

Inlet—Carley Brook; 10 feet wide, 1 foot deep, flowing through marshy ground.

Outlet—Carley Brook, 12 feet wide, 1 foot deep, flowing through open channel.

Utilization—Ice harvesting. Originally used as water power for mill.

Navigation—Rowboats.

Opportunity for Storage—Could be increased; high banks at outlet.

Ownership—Honesdale Milling Co., Honesdale, claims control.

BURCHILL POND

Location—Southern Thomson Township, northeastern Susquehanna County, on branch of Starrucca Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Area—Approximately 3 acres.

BURNS POND

Location—Southern Clinton Township, east central Wayne County, on small tributary of the Waymart Branch, Upper Delaware Sub-basin.

Area—Approximately 10 acres.

BUSHS POND

Location—Central Damascus Township, northeastern Wayne County, on Galilee Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 6.1 square miles.

Elevation—1175 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, regular; maximum length 1,890 feet; maximum width 875 feet.

Area—29.5 acres.

Capacity—70 acre-feet or 23,000,000 gallons.

Depth—Prevailing 4 feet; maximum 8 feet.

Dam—Timber-crib, 200 feet long, 10 feet high, filled with earth and stone. A spillway with provisions for flashboards controls a head of about 4 feet.

Topography—Pond lies between two ranges of hills rising to maximum height of 90 feet; approximately 50% covered with second growth timber, 50% cultivated. One dwelling on shore about 30 feet above water surface.

Inlet—Galilee Creek, 8 feet wide, 4 feet deep.

Outlet—Galilee Creek, 8 feet wide, 4 feet deep, flowing through clean channel.

Utilization—Private ice supply, boating, fishing, and water power for sawmill, using turbine wheel.

Navigation—Rowboats.

Opportunity for Storage—None; flat country at outlet.

Ownership—W. S. Bush, Damascus, claims control.

BUTLER LAKE

Location—Central Jackson Township, northeastern Susquehanna County, on Butler Creek, Upper North Branch Susquehanna Subbasin.

Type—Natural.

Drainage Area—1.2 square miles.

Elevation—1713 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Circular, very irregular; diameter approximately 1,020 feet.

Area—24.5 acres.

Capacity—156.4 acre-feet or 51,000,000 gallons.

Depth—Prevailing 11 feet; maximum 13 feet.

Dam—None (Destroyed).

Topography—Gradually rising country on three sides reaching a maximum height of 100 feet; approximately 70% thinly wooded with second growth timber, 30% cultivated. A dam at one time caused considerably more area to be flooded; this area now a swamp which almost surrounds lake.

Inlet—Butler Creek, 5 feet wide and 1 foot deep, flowing through swampy ground.

Outlet—Butler Creek, 8 feet wide and 1 foot deep, flowing through swampy ground.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good, dam could be built at old site, approximately 2,500 feet below mouth of outlet.

Ownership—Private interests claim lake to shore line.

BUTLER POND

Location—Southeastern Lake Township, south central Wayne County, on branch of Lakeville Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 2.8 square miles.

Elevation—1500 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Circular, irregular; approximate diameter 1,400 feet.

Area—43.9 acres.

Capacity—241 acre-feet or 79,000,000 gallons.

Depth—Prevailing 9 feet; maximum 11 feet.

Dam—Dry stone wall, 100 feet long, 8 feet high, with earth fill. Spillway regulates height of water.

Topography—Gradually rising ground on three sides reaching maximum height of 100 feet; about 50% under cultivation, 50% covered with second growth timber. Shore exceedingly marshy.

Inlet—Branch of Lakeville Creek, 5 feet wide, 6 inches deep, flowing through debris-filled channel in marshy ground.

Outlet—Branch of Lakeville Creek, 5 feet wide, 6 inches deep, flowing through debris-filled channel in marshy ground.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Emerson Frisbie, Ariel, claims control.

CADJAW POND

Location—Texas and Cherry Ridge townships, central Wayne County, on headwaters of branch of Lackawaxen River, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 0.7 square mile.

Elevation—1295 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and rectangular; maximum length 4,450 feet; maximum width 1,275 feet.

Area—89.2 acres.

Capacity—865 acre-feet or 282,000,000 gallons.

Depth—Prevailing 17 feet; maximum 26 feet.

Dam—Vertical dry stone wall, 300 feet long, 25 feet high, backed with earth and stone fill. Timber sluiceway, 13 feet by 8 feet, regulates height of water.

Topography—Pond lies between two ranges of hills, one side rising rapidly to maximum height of 120 feet. Public road parallels one side 10 to 20 feet above water surface. Practically entire surrounding country under cultivation.

Inlet—Fed by springs.

Outlet—Branch of Lackawaxen River, 6 feet wide, 1 foot deep, flowing through rocky channel.

Utilization—Private ice supply, boating and fishing; water supply for Honesdale, through 12-inch cast iron pipe.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Private parties own land; not limited to shore line; the Honesdale Consolidated Water Co. leases water rights.

CAMP POND

Location—Southern Herrick Township, eastern Bradford County, on Camp Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.1 square miles.

Elevation—1285 (Bar.) referred to L. V. R. R. levels.

Shape—Long and narrow, rather irregular; maximum length 2,700 feet; maximum width 560 feet.

Area—28.0 acres.

Capacity—92 acre-feet or 30,000,000 gallons.

Depth—Prevailing 6 feet; maximum 9 feet.

Dam—Vertical dry stone wall, 100 feet long, 15 feet high, backed with earth and stone fill. Stone spillway, 20 feet by 2 feet and 18-inch outlet pipe regulate height of water.

Topography—Surrounding ground rises gradually reaching maximum height of 100 feet; about 75% covered with second growth timber, 25% under cultivation. Two farm houses near pond approximately 50 feet above water surface.

Inlet—Camp Creek, 4 feet wide, 6 inches deep, flowing through clean channel in marshy ground.

Outlet—Camp Creek, 4 feet wide, 6 inches deep, flowing through clean rocky channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Could be increased; high banks at outlet and low surrounding country.

Ownership—Mr. Camp, Rummerfield, claims control.

CANADOTHA LAKE

Location—Central Bloomfield Township, northeastern Crawford County, on Oil Creek, Upper Allegheny Sub-basin.

Type—Natural.

Drainage Area—Approximately 7.8 square miles.

Elevation—1394 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and irregular; maximum length 5,175 feet; maximum width 2,000 feet.

Area—169.9 acres.

Capacity—3,137 acre-feet or 1,022,000,000 gallons.

Depth—Prevailing 22 feet; maximum 41 feet.

Dam—None.

Topography—Gradually rising ground on all sides; public road parallels one side, 40 feet above water surface; strip of swampy ground, several hundred feet wide, surrounds three sides of lake. Approximately 65% of surrounding country covered with second growth timber, 35% under cultivation. One club house and hotel near lake, 25 feet above water surface.

Inlets—East and West Shreve Runs, 6 feet wide, 1 foot deep, flowing through clear channel.

Outlet—Oil Creek, 16 feet wide, 3 feet deep, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Motor boats and rowboats.

Opportunity for Storage—Could be increased as banks are high at outlet.

Ownership—The Canadotha Club owns surrounding land; not limited to shore line.

CAREY, LAKE

Location—Southern Lemon and northern Tunkhannock townships, north central Wyoming County, on Mill Brook, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural.

Drainage Area—4.5 square miles.

Elevation—915 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, very irregular; maximum length 10,225 feet; maximum width 2,180 feet.

Area—262.6 acres.

Capacity—3,782 acre-feet or 1,232,000,000 gallons.

Depth—Prevailing 22 feet; maximum 34 feet.

Dam—Vertical dry stone wall, 70 feet long, 12 feet high, backed with earth and stone fill. Timber spillway and wooden flume regulate height of water.

Topography—Water surface area increased by dam on outlet. Surrounding country rises gradually from water edge to maximum height of 60 feet; approximately 30% covered with second growth timber, 70% cultivated. Public road parallels one side 20 feet above water surface and crosses outlet on embankment forming small lake, marshy on all sides, known as Flow Pond. Cottages and boat houses on shore.

Inlets—Two streams, 10 feet wide, 2 feet deep, flowing through marshy ground with clean channels. Also fed by springs.

Outlet—Mill Brook, 15 feet wide, 3 feet deep, flowing rapidly through clean rocky channel.

Utilization—Private ice supply and summer resort; also water power for sawmill using turbine.

Navigation—Motor boats and rowboats.

Opportunity for Storage—Good; steep banks at outlet, but a rise of 2 to 3 feet would damage valuable property on shore.

Ownership—Private parties own surrounding land; not limited to shore line.

CARMAULTS LAKE (See CHOCONUT LAKE)

CARP POND

Location—Southeastern Lenox Township, southeastern Susquehanna County, on tributary of East Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 2.5 acres.

CARR LAKE

Location—Southeastern Springville Township, south central Susquehanna County, on branch of Field Brook, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1321 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Elliptical, irregular; maximum length 1,810 feet; maximum width 1,090 feet.

Area—30.0 acres.

Capacity—442 acre-feet or 144,000,000 gallons.

Depth—Prevailing 22 feet; maximum 28 feet.

Dam—None.

Topography—Hills on three sides; ground rising gradually to maximum height of 60 feet; 95% cultivated, 5% covered with second growth timber. Two farm houses and outbuildings near lake, approximately 30 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Field Brook, about 4 feet wide, 1 foot deep, flowing through clean gravelly channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good topographically, but because of small drainage area is not practicable.

Ownership—Two persons claim control.

CARRS POND

Location—East central Lebanon Township, north central Wayne County, Upper Delaware Sub-basin.

Area—Approximately 15 acres.

CASES POND

Location—South central Clinton Township, west central Wayne County, on tributary of Waymart Branch, Upper Delaware Sub-basin.

Area—Approximately 5 acres.

CATALPA LAKE (See RYMANS POND)

CHAMBERLIN POND

Location—Southern Windham Township, northwestern Wyoming County, on Little Mehoopany Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 3.4 square miles.

Elevation—1020 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, rather irregular; maximum length 2,715 feet; maximum width 1,050 feet.

Area—47.6 acres.

Capacity—169 acre-feet or 55,000,000 gallons.

Depth—Prevailing 6 feet; maximum 10 feet.

Dam—Vertical dry stone wall, 75 feet long, 10 feet high, backed with earth fill; all spillway.

Topography—Generally high ground on all sides, rising gradually to maximum height of 200 feet, practically all covered with second growth timber.

Inlet—Little Mehoopany Creek, 10 feet wide, 2 feet deep, flowing through clean channel.

Outlet—Little Mehoopany Creek, 20 feet wide, 3 feet deep, flowing rapidly through clean channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Several persons claim control.

CHAPMANS LAKE, old name STULLS POND

Location—East central Scott Township, north central Lackawanna County, on tributary of South Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1530 (Bar.) referred to D. & H. R. R. levels.

Shape—Oval, irregular; maximum length 3,380 feet; maximum width 2,100 feet.

Area—98.0 acres.

Capacity—2,350 acre-feet or 766,000,000 gallons.

Depth—Prevailing 30 feet; maximum 55 feet.

Dam—Concrete, 85 feet long, 4 feet high. Spillway and outlet pipe regulate height of water, which varies 5 feet.

Topography—Lake lies near top of ridge, surrounding country sloping gradually on all sides reaching maximum height of 75 feet on north; 95% under cultivation, 5% covered with second growth timber. Several cottages, two farm houses, two dancing pavilions and three boat houses near lake, 2 to 40 feet above water surface.

Inlet—Fed by springs.

Outlet—Tributary of South Branch Tunkhannock Creek, dry at times; clean gravelly channel.

Utilization—Private ice supply, summer resort and water supply for boroughs of Jermyn, Archbald and Peckville.

Navigation—Motor boats and rowboats.

Opportunity for Storage—None; low banks at outlet.

Ownership—Consolidated Water Supply Co., Scranton, claims control of lake to high water mark.

CHAUTAUQUA LAKE, or CONEWAGO, LAKE

Location—South Londonderry Township, south central Lebanon County, Lower Main Susquehanna Sub-basin.

Type—Artificial.

Elevation—610 referred to U. S. G. S. datum.

Area—14.3 acres.

CHEHOCTON POND, or SHEHAWKEN POND

Location—Northern Preston Township, northwestern Wayne County, on Chehocton Creek, Upper Delaware Sub-basin.

Type—Natural; dam caused little increased pondage.

Drainage Area—Approximately 1.1 square miles.

Elevation—1710 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Oval, irregular; maximum length 2,425 feet; maximum width 1,410 feet.

Area—54.0 acres.

Capacity—803 acre-feet or 262,000,000 gallons.

Depth—Prevailing 28 feet; maximum 36 feet.

Dam—Vertical dry stone wall, 70 feet long, 8 feet high, faced with concrete. Spillway, 8 feet by 4 feet, regulates height of water.

Topography—Surrounding cultivated country generally low, rising to maximum height of 10 feet.

Inlet—Fed by springs.

Outlet—Chehocton Creek, 8 feet wide, flowing through rocky channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Several persons claim control.

CHESTNUT LAKE (See LONG POND)

CHOCONUT LAKE; old name CARMAULTS LAKE

Location—Southern Choconut Township, northwestern Susquehanna County, on Choconut Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.8 square mile.

Elevation—1579 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, regular; maximum length 2,070 feet; maximum width 1,030 feet.

Area—35.8 acres.

Capacity—781 acre-feet or 254,000,000 gallons.

Depth—Prevailing 31 feet; maximum 45 feet.

Dam—None.

Topography—Ground rises gradually on all sides and reaches maximum height of 125 feet; approximately 40% thinly covered with second growth timber; 60% under cultivation. Three farm dwellings, five summer cottages, and several bath houses near lake, 1 to 25 feet above water surface.

Inlet—Choconut Creek, 4 feet wide, 1 foot deep, flowing through clean channel in slightly marshy ground; also fed by springs.

Outlet—Choconut Creek, 3 feet wide, 6 inches deep, flowing through gravelly channel filled with debris.

Utilization—Private ice supply and boys' summer camp.

Navigation—Rowboats.

Opportunity for Storage—Good; narrow valley at outlet.

Ownership—Several persons claim lake and right of entry thereon.

CHURCHILL POND

Location—Northwestern Thomson Township, northeastern Susquehanna County, on branch of Canawacta Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 12 acres.

CLEAR LAKE

Location—North central Sparta Township, northeastern Crawford County, on East Branch Oil Creek, Upper Allegheny Sub-basin.

Type—Artificial.

Drainage Area—Approximately 14.1 square miles.

Elevation—1440 (Bar.) referred to P. R. R. levels, U. S. G. S. datum.

Shape—Oval, irregular; maximum length 4,305 feet; maximum width 1,750 feet.

Area—117.5 acres.

Capacity—265 acre-feet or 86,000,000 gallons.

Depth—Prevailing 3 feet; maximum 9 feet.

Dam—Concrete, 70 feet long, 10 feet high. Race from one end to mill where gates are provided for regulating height of water.

Topography—Generally high ground on all sides rising gradually to maximum height of 200 feet. Strip of swampy ground around border with tree stumps protruding over entire water surface. Railroad parallels two sides of lake 10 feet above water surface. Approximately 50% of surrounding country covered with second growth timber and brush, 50% cultivated. A store and grist mill immediately below dam at an elevation 6 feet below that of water surface.

Inlet—East Branch Oil Creek, 20 feet wide, 6 inches deep, flowing through clean channel.

Outlet—East Branch Oil Creek, 25 feet wide, 6 inches deep, flowing through clean channel.

Utilization—Private ice supply, boating and fishing; furnishes water for grist mill using 40 to 50 horsepower turbine.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Davis and Hyde, Spartansburg, claim control of lake.

CLEMO, LAKE (See SAND POND)

CLINE POND

Location—Northwestern Damascus Township, northeastern Wayne County, at headwaters of small branch of Delaware River, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1410 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—18.0 acres.

COLLINS POND; also called REININGS POND

Location—Northwestern Cherry Ridge Township, central Wayne County, on Collins Brook, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 3.8 square miles.

Elevation—1290 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, triangular, regular; maximum length 3,015 feet; maximum width 900 feet.

Area—43.1 acres.

Capacity—192 acre-feet or 63,000,000 gallons.

Depth—Prevailing 9 feet; maximum 12 feet.

Dam—Vertical dry stone wall, 200 feet long, 16 feet high, backed with earth and stone. Spillway regulates height of water.

Topography—Pond lies between two ranges of hills rising rapidly to maximum height of 230 feet. Approximately 40% of surrounding country covered with second growth timber, 60% cultivated.

Inlet—Collins Brook, 10 feet wide, 1 foot deep, flowing through clean rocky channel.

Outlet—Collins Brook, 15 feet wide, 1 foot deep, flowing through clean rocky channel.

Utilization—Private ice supply, boating, fishing, and water power for sawmill on outlet.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Reining & Son, Honesdale, claim control.

COMFORTS POND (See page 30)

Location—Southern Harmony Township, northeastern Susquehanna County, on Canawacta Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 0.8 square mile.

Elevation—1946 (Bar.) referred to Erie R. R. levels.

Shape—Rectangular, fairly regular; maximum length 2,740 feet; maximum width 1,310 feet.

Area—61.5 acres.

Capacity—674 acre-feet or 220,000,000 gallons.

Depth—Prevailing 16 feet; maximum 27 feet.

Dam—Vertical dry stone wall, about 150 feet long, backed with earth and stone fill. Concrete spillway and pipe outlet provided.

Topography—Surrounding country rises gradually reaching a maximum height of 100 feet; approximately 40% densely wooded with second growth timber, 60% under cultivation. Public road parallels one side for 1,500 feet, 3 to 10 feet above water surface. Six farm dwellings with outbuildings, near pond, 10 to 30 feet above water surface.

Inlet—Fed by springs.

Outlet—Canawacta Creek about 5 feet wide, 4 feet deep, flowing through rocky channel.

Utilization—Used as storage reservoir for water supply of Susquehanna and Lanesboro boroughs; private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Canawacta Water Supply Co., Susquehanna, claims pond and land 20 feet above high water mark.

COMO, LAKE

Location—Eastern Preston Township, north central Wayne County, on branch of Equinunk Creek, Upper Delaware Sub-basin.

Type—Originally natural; dam flooded additional area.

Drainage Area—Approximately 3.1 square miles.

Elevation—1440 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Triangular, very irregular; maximum length 4,600 feet; maximum width 1,875 feet.

Area—80.0 acres.

Capacity—742 acre-feet or 242,000,000 gallons.

Depth—Prevailing 15 feet; maximum 29 feet.

Dam—Vertical dry stone wall, 55 feet long, 10 feet high, backed with earth and stone fill. Timber sluiceway regulates height of water, which varies considerably during wet and dry seasons.

Topography—Surrounding country under cultivation, generally low, rising gradually to maximum height of 20 feet. Public road parallels one side. Numerous cottages on shore, and five or six farm houses directly below dam on outlet.

Inlet—Branch of Equinunk Creek, about 10 feet wide, flowing through open channel. Also fed by springs.

Outlet—Branch of Equinunk Creek, 15 feet wide, flowing through rocky channel.

Utilization—Private ice supply, summer resort and water power for grist mill using a turbine wheel.

Navigation—Rowboats..

Opportunity for Storage—Could be increased; high banks at outlet; would damage surrounding land.

Ownership—Edward Underwood Heirs, New York City, claim control.

CONEWAGO, LAKE (See CHAUTAUQUA LAKE)

CONNEAUT LAKE

Location—Summit and Sadsbury townships, west central Crawford County, on Conneaut Lake Creek, Upper Allegheny Sub-basin.

Type—Natural.

Drainage Area—Approximately 27.9 square miles.

Elevation—1072, referred to U. S. G. S. datum.

Shape—Long, oval, very irregular; maximum length 14,465 feet; maximum width 5,255 feet.

Area—928.5 acres.

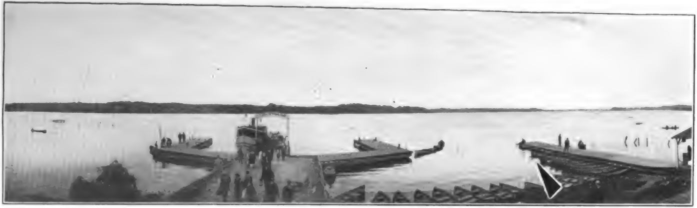
Capacity—17,160 acre-feet or 5,591,000,000 gallons.

Depth—Prevailing 34 feet; maximum 65 feet.

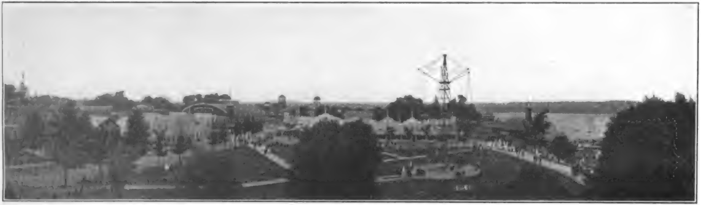
Dam—None.

Topography—Low, gradually rising ground surrounds lake; one side rises abruptly reaching maximum height of 125 feet; two sides exceedingly marshy. Approximately 25% of surrounding country covered with second growth timber, 75% under cultivation. Amusement and exhibition grounds, many summer cottages and hotels, along the shore and on adjoining high ground. Numerous docks, boat and ice houses at water edge. Borough of Conneaut at southern end of lake.

Inlets—Numerous small streams flow into lake. Beaver Creek and the Big Ditch, each 10 feet wide and 2 feet deep; also Little Conneaut Creek, 20 feet wide, 5 feet deep.



Conneaut Lake Navigation Co. Docks, Conneaut Lake, Crawford County



Exposition Park, Conneaut Lake, Crawford County

Outlet—Conneaut Lake Creek, branch of French Creek, 25 feet to 30 feet wide, 2 to 3 feet deep, flowing through clean gravelly channel.

Utilization—Ice harvesting and large summer resort. Up to 1872 the lake was 10.5 feet higher and was used as feeder for Erie Canal.

Navigation—Steamboats, motor boats, sailboats and rowboats. Largest boats, from 15 to 50 horsepower, operated by Conneaut Lake Navigation Co., carry freight and passengers.

Opportunity for Storage—Could be raised several feet by means of old regulating gates. Any increase would cause damage to piers, cottages, etc. on shore.

Ownership—State of Pennsylvania claims control of lake; limited to shore line. Conneaut Lake Navigation Co., has leased the navigation rights. Conneaut Lake and Navigation Ice companies have water rights for purpose of harvesting ice.

CONNEAUTTE LAKE

Location—South central Washington Township, southern Erie County, on Conneautte Creek, Upper Allegheny Sub-basin.

Type—Artificial.

Drainage Area—Approximately 23.7 square miles.

Elevation—1197 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 6,460 feet; maximum width 3,530 feet.

Area—247.0 acres.

Capacity—2,461 acre-feet or 802,000,000 gallons.

Depth—Prevailing 13 feet; maximum 30 feet.

Dam—Concrete, 106 feet long, 11 feet high. Spillway and outlet flume provide for regulation of height of water.

Topography—Surrounding country rising gradually from water edge, reaches a maximum height of 50 feet; approximately 35% covered with second growth timber and brush, balance under cultivation. Trolley line and public road parallel one side. Marshy ground almost completely surrounds lake. Village of Edinboro lies near outlet at height of 15 to 20 feet above water surface.

Inlets—Conneautte Creek, 20 feet wide, 13 feet deep, also Coulter Creek, 8 feet wide, 4 feet deep; both have sluggish flow through marshy ground.

Outlet—Conneautte Creek, 20 feet wide, 2 feet deep, flowing through marshy ground.

Utilization—Private ice supply, summer resort and power for Keystone grist mill.

Navigation—Rowboats.

Opportunity for Storage—Could be increased slightly, but with damage to trolley track, cottages, etc.

Ownership—Elizabeth Cannon, Sandy Lake, claims control.

CONNELL COAL DAM

Location—East central Cherry Township, northeastern Sullivan County, on Birch Creek, Lower West Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 3.9 square miles.

Elevation—1985 (Bar.) referred to L. V. R. R. levels.

Shape—Triangular, regular; maximum length 1,860 feet; maximum width 765 feet.

Area—21.1 acres.

Capacity—94 acre-feet or 31,000,000 gallons.

Depth—Prevailing 7 feet; maximum 12 feet.

Dam—Concrete, 445 feet long, 12 feet high. Spillway and outlet pipe regulate height of water.

Topography—Steep hills on three sides rising to maximum height of 200 feet. Entire surrounding country covered with second growth timber and brush.

Inlet—Birch Creek, 10 feet wide, 1 foot deep, flowing through channel free of debris.

Outlet—Birch Creek, 15 feet wide, 1.5 feet deep, flowing swiftly through rocky channel free of debris.

Utilization—Private ice supply, boating, fishing, and water power for coal mine.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Connell Coal Dam Co., Lopez, claims control.

COOLBAUGH POND

Location—Southeastern Middle Smithfield Township, east central Monroe County, on Pond Creek, Upper Delaware Sub-basin.

Type—Natural.

Elevation—493 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—11.3 acres.

COPES PONDS (Two)

Location—Northern Dimock Township, central Susquehanna County, on branch of Meshoppen Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 4 and 8 acres respectively.

CORILLA LAKE, BIG

Location—Northern Lackawaxen Township, north central Pike County, on branch of Mast Hope Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.2 square mile.

Elevation—1239 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Irregular; maximum length 3,540 feet; maximum width 1,220 feet.

Area—73.6 acres.

Capacity—996 acre-feet or 325,000,000 gallons.

Depth—Prevailing 22 feet; maximum 30 feet.

Dam—None.

Topography—High ground on three sides, rising gradually to maximum height of 125 feet. Entire surrounding country covered with second growth and virgin timber. Several boat houses at water edge.

Inlet—Fed by springs.

Outlet—Branch of Mast Hope Creek, 10 feet wide, 1 to 2 feet deep, flowing through marshy ground.

Utilization—Fishing; private water supply for club house.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Forest Lake Club claims control.

CORILLA LAKE, LITTLE; also called STUMPY POND

Location—Northern Lackawaxen Township, north central Pike County, on branch of Mast Hope Creek, Upper Delaware Sub-basin.

Type—Originally natural; dam flooded additional area.

Drainage Area—Approximately 0.5 square mile.

Elevation—1231 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, irregular; maximum length 6,170 feet; maximum width 1,560 feet.

Area—117.2 acres.

Capacity—830 acre-feet or 270,000,000 gallons.

Depth—Prevailing 9 feet; maximum 20 feet.

Dam—Earthen dam, 50 feet long, 5 feet high, with concrete core wall. Concrete spillway 15 feet by 1 foot.

Topography—Surrounding country gradually rises to maximum height of 120 feet. Water surface covered with snags, stumps and floating logs. Entire watershed covered with second growth timber. One boat house at water edge.

Inlet—Branch of Mast Hope Creek, 10 to 12 feet wide, 1 to 2 feet deep flowing through swampy ground.

Outlet—Branch of Mast Hope Creek, 14 to 15 feet wide, 1 to 2 feet deep, flowing through rocky channel strewn with debris.

Utilization—Private summer resort and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically.

Ownership—Forest Lake Club claims control.

COTTRELL LAKE

Location—Northeastern Clifford Township, southeastern Susquehanna County, on branch of Burns Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.4 square mile.

Elevation—1647 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Circular, regular; diameter approximately 1,260 feet.

Area—23.5 acres.

Capacity—273 acre-feet or 89,000,000 gallons.

Depth—Prevailing 18 feet; maximum 28 feet.

Dam—None.

Topography—Steep hills on three sides, ground rising to maximum height of 75 feet. Approximately 5 % of country covered with second growth timber, 95% under cultivation. Four farm dwellings near lake, 25 to 50 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Burns Creek, 3 feet wide, 4 inches deep, flowing through channel full of debris.

Utilization—Private ice supply; private water supply in summer time when surrounding wells are dry. Hydraulic ram lifts water to Uniondale Fair grounds.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Several persons claim control.

COXTOWN POND

Location—Northwestern Preston Township, northwestern Wayne County, at headwaters of branch of Starrucca Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1975 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Oval, regular; maximum length 3,540 feet; maximum width 1,900 feet.

Area—109.7 acres.

Capacity—1,836 acre-feet or 598,000,000 gallons.

Depth—Prevailing 28 feet; maximum 33 feet.

Dam—None.

Topography—High ground on all sides rising rapidly from water edge; all covered with second growth timber. Many summer cottages dot shore line.

Inlet—Fed by springs.

Outlet—Branch of Starrucca Creek, 8 feet wide, flowing swiftly through rocky channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Mrs. Strom, Starrucca, claims control.

CRACKENBURG POND

Location—East central Cherry Ridge Township, south central Wayne County, on branch of Pond Brook, Upper Delaware Sub-basin.

Type—Artificial.

Area—Approximately 12 acres.

CRAMER POND; also called LONG POND

Location—Clinton, Dyberry and Mt. Pleasant townships, southwestern Wayne County, on tributary of West Branch Lackawaxen River, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.4 square miles.

Elevation—1410 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, irregular; maximum length 3,825 feet; maximum width 870 feet.

Area—62.0 acres.

Capacity—437 acre-feet or 142,000,000 gallons.

Depth—Prevailing 14 feet; maximum 19 feet.

Dam—Earth and stone, 500 feet long, 20 feet high. Sluiceway 8 feet by 10 feet provided.

Topography—High ground on all sides rising gradually to maximum height of 230 feet and covered with second growth timber. One dwelling on shore, 100 feet above water surface.

Inlet—Tributary of West Branch Lackawaxen River, 2 feet wide, 6 inches deep, flowing through clean channel. Also fed by springs.

Outlet—Tributary to West Branch of Lackawaxen River, 10 feet wide, 1 foot deep, flowing through debris-strewn channel.

Utilization—Private ice supply, boating, fishing, also feeder for D. & H. Canal.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Several persons claim control.

CRANBERRY LAKE

Location—Southern Silver Lake Township, northwestern Susquehanna County, on branch of Silver Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Elevation—1709 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—13.9 acres.

CRANBERRY POND

Location—Northwestern Slocum Township, central Luzerne County, on branch of Wapwallopen Creek, Lower North Branch Susquehanna Sub-basin.

Area—8.0 acres.

CROOKED POND

Location—Central Benton Township, northwestern Lackawanna County, on small tributary of the South Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.7 square mile.

Elevation—1230 (Bar.) referred to U. S. G. S. datum.

Shape—Very irregular, maximum length 2,515 feet; maximum width 890 feet.

Area—34.7 acres.

Capacity—336 acre-feet or 109,000,000 gallons.

Depth—Prevailing 19 feet; maximum 28 feet.

Dam—None.

Topography—Surrounding country on all sides rises gradually to maximum height of 100 feet; about 75% covered with second growth timber, 25% cultivated. Public road parallels one side 10 to 60 feet above water surface.

Inlet—Fed by springs.

Outlet—Tributary of South Branch Tunkhannock Creek, 3 feet wide, 2 inches deep, flowing through clean channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Could be increased, high banks at outlet

Ownership—Private control.

CRYSTAL LAKE

Location—Northeastern Greenfield Township, and northwestern Fell Township, north central Lackawanna County; also southern Clifford Township, southeastern Susquehanna County, on branch of Fall Brook, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.9 square mile.

Elevation—1745 referred to U. S. G. S. datum.

Shape—Circular, very irregular; approximate diameter 2,350 feet.

Area—191.4 acres.

Capacity—5,325 acre-feet or 1,735,000,000 gallons.

Depth—Prevailing 33 feet; maximum 74 feet.

Dam—Earth embankment, 50 feet long, about 2 to 3 feet high.

Topography—Lake near top of high ridge; surrounding country generally low and flat, rising steeply on north side to maximum height of 50 feet; 80% under cultivation, 20% covered with second growth timber and brush. On shore of lake are 25 to 30 houses, 14 boat houses, 1 hotel and several boarding houses, 2 to 40 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Fall Brook, dry at times; clean gravelly channel.

Utilization—Private water and ice supplies, summer resort, water supply for Carbondale.

Navigation—Motor boats and rowboats.

Ownership—Consolidated Water Supply Co., Scranton, claims control of lake, and owns most of surrounding land. Several persons own land along shore line.

CRYSTAL LAKE; originally called STINK POND

Location—Western Bear Creek Township, east central Luzerne County, on headwaters of Wapwallopen Creek, (this has been diverted into Solomon Creek) Lower North Branch Susquehanna Sub-basin.

Type—Originally natural.

Drainage Area—2.3 square miles.

Elevation—1937, referred to U. S. G. S. datum.

Shape—Long, very irregular, maximum length 8,500 feet; maximum width 4,200 feet.

Area—420.0 acres.

Capacity—5,085 acre-feet or 1,657,000,000 gallons.

Dam—Concrete, 710 feet long, 18 feet high.

Topography—Lake lies near top of mountainous ridge surrounded by gradually rising ground reaching maximum height of 130 feet; practically all covered with second growth timber and brush.

Inlet—Fed by springs.

Outlet—Through water supply main.

Utilization—Water supply for city of Wilkes-Barre and vicinity.

Navigation—None.

Ownership—Spring Brook Water Supply Co., Wilkes-Barre.

CRYSTAL LAKE

Location—Southern Hillsgrove Township, west central Sullivan County; also southeastern Plunketts Creek Township, east central Lycoming County, on headwaters of Big Bear Run, Lower West Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 10 acres.

CUMMINGS POND

Location—Northwestern Franklin Township, north central Luzerne County, on branch of Sutton Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1190 (Bar.) referred to U. S. G. S. datum.

Shape—Oval, regular; maximum length 2,000 feet; maximum width 1,350 feet.

Area—43.8 acres.

Capacity—142 acre-feet or 46,000,000 gallons.

Depth—Prevailing 5 feet; maximum 10 feet.

Dam—None.

Topography—High ground on three sides rising gradually to maximum height of 250 feet. One side of lake exceedingly marshy. Public road parallels another side 20 feet above water surface. Entire surrounding country covered with second growth timber. One farm house near pond, 25 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Sutton Creek, 5 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low, marshy ground at outlet.

Ownership—Daniel B. Winters, R. F. D., Dallas, claims control.

CURTIS POND

Location—North central South Canaan Township, southwestern Wayne County, on branch of Middle Creek, Upper Delaware Sub-basin.

Area—Approximately 10 acres.

DAVIS MARSH POND

Location—Central Colley Township, northeastern Sullivan County, on headwaters of branch of Rocky Run, Lower West Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 6 acres.

DAY POND

Location—Northwestern Oregon Township, east central Wayne County, at headwaters of branch of Dyberry Creek, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1130 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—8.0 acres.

DORNEYS LAKE (Combination of DORNEYS POND and BEAVER DAM)

Location—Southwestern Coolbaugh Township, northwestern Monroe County, on Trout Creek, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 9.5 square miles.

Elevation—1716 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape— Long and narrow, irregular; maximum length 2,975 feet; maximum width 920 feet.

Area—42.1 acres.

Capacity—172 acre-feet or 56,000,000 gallons.

Depth—Prevailing 6 feet; maximum 10 feet.

Dam—Earth embankment, about 1,600 feet long, 19 feet maximum height. Spillway channel provided at left end.

Topography—Lake lies between two ranges of hills; ground rises gradually to maximum height of 150 feet, approximately 90% covered with second growth timber and brush, 10% cultivated. One barn and one shed near lake at height of 5 feet above water surface.

Inlet—Trout Creek, 30 feet wide, 1 foot deep, flowing through muddy channel, full of debris.

Outlet—Trout Creek, 15 feet wide, 2 feet deep, flowing through clean gravelly channel.

Utilization—Formerly logging pond. Large ice harvesting plant under construction.

Navigation—None.

Opportunity for Storage—Could be increased; steep banks at outlet.

Ownership—Brady Brothers, Bayonne, N. J., claim control.

DORYS DAM

Location—Northern Porter Township, south central Pike County, on Rocky Hill Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 8.8 square miles.

Elevation—1336 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, irregular; maximum length 3,770 feet; maximum width 915 feet.

Area—52.0 acres.

Capacity—113 acre-feet or 37,000,000 gallons.

Depth—Prevailing 4 feet; maximum 7 feet.

Dam—Timber-crib, 150 feet long, 8 feet high, with earth and stone fill. Spillway and timber sluiceway with wooden regulating gate are provided for regulating height of water.

Topography—Lake located in game reserve; surrounding country rises gradually, reaching maximum height of 80 feet; considerable swampy ground bordering one side. Small ice and boat house 1 to 5 feet above water surface.

Inlet—Rocky Hill Creek, 18 feet wide, 1 foot deep, flowing through marshy ground.

Outlet—Rocky Hill Creek, 35 feet wide, 1 foot deep, flowing through rocky channel full of debris.

Utilization—Private ice supply, boating and fishing. Originally used as storage dam for sawmill on outlet.

Navigation—Rowboats.

Opportunity for Storage—Good; it is claimed that during heavy rainfalls, water rises 2.5 feet.

Ownership—Heirs of Westbrod and Hess claim control.

DUCK POND (See MUD POND)

DUCK HARBOR POND

Location—Damascus and Lebanon townships, northeastern Wayne County, on Little Equinunk Creek, Upper Delaware Sub-basin.

Type—Originally natural, dam caused submergence of considerably more area.

Drainage Area—Approximately 3.9 square miles.

Elevation—1540 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, irregular, maximum length 5,600 feet; maximum width 1,470 feet.

Area—121.6 acres.

Capacity—1,978 acre-feet or 644,000,000 gallons.

Depth—Prevailing 34 feet; maximum 56 feet.

Dam—Dry masonry wall, 200 feet long, 12 feet high, faced with concrete. Spillway and sluiceway are provided.

Topography—Lake lies between two ranges of hills rising gradually to maximum height of 50 feet; both ends swampy. About 50% of surrounding country covered with second growth timber, 50% cultivated. Two houses on shore.

Inlet—Little Equinunk Creek, 10 feet wide, 8 inches deep, flowing through marshy ground; also fed by springs.

Outlet—Little Equinunk Creek, 20 feet wide, 2 feet deep, flowing through marshy ground.

Utilization—Private ice supply, boating, fishing and water power.

Navigation—Rowboats.

Opportunity for Storage—Could be increased, steep banks at outlet.

Ownership—J. G. Hill, Lookout, claims control.

DUNNS LAKE

Location—Northeastern Ararat Township, east central Susquehanna County, on Dunns Lake Creek, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.7 square miles.

Elevation—1966 (Bar.) referred to Erie R. R. levels.

Shape—Long, rectangular, irregular, maximum length 4,170 feet; maximum width 1,375 feet.

Area—94.4 acres.

Capacity—1,793 acre-feet or 581,000,000 gallons.

Depth—Prevailing 26 feet; maximum 45 feet.

Dam—None.

Topography—Low hills on three sides rising gradually to maximum height of 40 feet. Ground around inlet slightly marshy. About 90% of country wooded with second growth timber, 10% under cultivation. Three farm-houses and four cottages near lake, 20 to 30 feet above water surface.

Inlet—Small stream, 1 foot wide, 3 inches deep, dry in summer, flows through marshy ground. Also fed by springs.

Outlet—Dunns Lake Creek, 6 feet wide, 6 inches deep, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Available as storage for Scranton water supply, could not be increased appreciably.

Ownership—Private control of land to shore line. Consolidated Water Supply Co., Scranton, claims lake.

DURBENT LAKE (See LAUREL LAKE)

EAGLESMERE or LEWIS LAKE

Location—North central Shrewsbury Township, central Sullivan County, on Muncy Creek, Lower West Branch Susquehanna Subbasin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—2001.5 furnished by local authority.

Shape—Oval, rather irregular; maximum length 3,885 feet; maximum width 1,720 feet.

Area—116.4 acres.

Capacity—2,447 acre-feet or 797,000,000 gallons.

Depth—Prevailing 25 feet; maximum 38 feet.

Dam—None. Outlet has been lowered and 5-foot regulating gate placed in same.

Topography—High ground on three sides rising abruptly in places and reaching maximum height of 200 feet; 50% of surrounding country covered with second growth timber, 50% under cultivation. Public road around lake 6 to 100 feet above water surface. Village of Eaglesmere on high ground on east side. Numerous cottages near shore from 2 to 100 feet above water surface.

Inlet—Fed by springs.

Outlet—Muncy Creek, 2 feet wide, 6 inches deep, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Motor boats and rowboats.

Opportunity for Storage—None; low ground at outlet and valuable property around lake.

Ownership—Eaglesmere Land Co., Eaglesmere.

EARNEST, LAKE; old name GRASSY POND

Location—Eastern Greene Township, west central Pike County, on branch of Wells Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1883 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 1,750 feet; maximum width 1,460 feet.

Area—32.6 acres.

Capacity—171.2 acre-feet or 56,000,000 gallons.

Depth—Prevailing 8 feet; maximum 12 feet.

Dam—None.

Topography—Lake lies near summit of Knob Mountain. Surrounding country generally low and flat, rising gradually to maximum height of 35 or 40 feet on north side; entire watershed covered with second growth timber and brush. One shed near the lake, 5 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Wells Creek, 2 feet wide, 2 inches deep, flowing through swampy ground.

Utilization—Private boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; surrounding country low.

Ownership—The Blooming Grove Hunting & Fishing Club claims control.

EAST LAKE

Location—Northeastern New Milford Township, central Susquehanna County, on branch of Saltlick Creek, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural; dam caused large increase in submergence.

Drainage Area—Approximately 1.2 square miles.

Elevation—1468 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular, triangular; maximum length 2,230 feet; maximum width 1,110 feet.

Area—36.9 acres.

Capacity—446 acre-feet or 145,000,000 gallons.

Depth—Prevailing 16 feet; maximum 28 feet.

Dam—Dry stone wall, approximately 100 feet in length, 6 feet high, backed with earth fill.

Topography—Surrounding country rises gradually to maximum height of 50 feet; approximately 70% of surrounding country thickly covered with second growth and virgin timber, 30% cultivated. Public highway parallels one side for about 1,000 feet, 8 to 10 feet above water surface. Six summer cottages near lake, 5 to 6 feet above water surface.

Inlet—Branch Saltlick Creek, 4 feet wide and 6 inches deep, flowing through swampy ground. Also fed by springs.

Outlet—Branch Saltlick Creek, 6 feet wide and 1 foot deep, flowing through clean channel.

Utilization—Private ice supply and small summer resort.

Navigation—Rowboats.

Opportunity for Storage—Dam approximately 250 feet long would raise water 10 to 12 feet, but would flood cottages and public road;

small drainage area would not warrant heavy expenditures for increased storage.

Ownership—Private parties. Present lake not limited to shore line, while old, natural lake was so limited.

EAST BRANCH POND (See PAUPACK, LAKE)

EBYS POND

Location—Southwestern Silver Lake Township, northwestern Susquehanna County, on branch of Choconut Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Area—Approximately 12 acres.

ECHO LAKE; also called SEYLEYS POND

Location—Middle Smithfield Township, east central Monroe County, on Pond Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—498 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, regular; maximum length 1,950 feet; maximum width 760 feet.

Area—21.5 acres.

Capacity—381 acre-feet or 124,000,000 gallons.

Depth—Prevailing 27 feet; maximum 40 feet.

Dam—None.

Topography—Steep banks on all sides; ground rises to maximum height of 300 feet; approximately 50% covered with second growth timber, 50% under cultivation. On shore, 19 cottages and 1 boat house, 1 foot to 30 feet above water surface.

Inlet—Fed by springs.

Outlet—Not defined by clear-cut channel but apparently water finds way through numerous small channels running through tuft grass and swamp. It is claimed a channel was once perceptible from this lake to Coolbaugh Pond one-half mile below, but has since filled with silt.

Utilization—Private water supply to summer cottages, private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good topographically, but owing to small drainage area it is doubtful if expense would warrant. Geographically, Coolbaugh Pond and Echo Lake were once a single large lake.

Ownership—Private; not limited to shore line.

ECHO LAKE

Location—Eastern Coolbaugh Township, northwestern Monroe County, on headwaters of Upper Tunkhannock Creek, Middle Delaware Sub-basin.

Type—Natural.

Area—Approximately 15 acres.

EDGEMERE LAKE (See SILVER LAKE)

ELICK POND

Location—Southeastern Greene Township, west central Pike County, on headwaters of branch of Paupack Creek, Upper Delaware Sub-basin.

Type—Natural.

Area—Approximately 40 acres.

ELK LAKE

Location—Northwestern Elkland Township, northwestern Sullivan County, on branch of Elk Creek, Lower West Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 15 acres.

ELK LAKE, BIG; old names LATHROPS LAKES, ONE OF; also TWIN LAKES, ONE OF

Location—Northeastern Dimock Township, central Susquehanna County, on Lake Stream, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural; dam flooded additional area.

Drainage Area—Approximately 1.6 square miles.

Elevation—1366 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 2,870 feet; maximum width 2,070 feet.

Area—84.0 acres.

Capacity—2,430 acre-feet or 792,000,000 gallons.

Depth—Prevailing 43 feet; maximum 72 feet.

Dam—Vertical dry stone wall, approximately 100 feet in length, about 13 feet high, backed with earth and stone fill. Wooden outlet flume regulates height of water.

Topography—High ground on all sides rising gradually to maximum height of 100 feet; approximately 10% covered with second growth timber, 90% under cultivation. Public road parallels one side for 800 feet, 6 to 8 feet above water surface. Near lake are 12 to 15 summer cottages, 4 dwellings and 2 boat houses, 1 to 30 feet above water surface.

Inlet—Lake Stream, about 30 feet wide and 6 feet deep, flowing through clean rocky channel in narrow valley.

Outlet—Lake Stream, approximately 10 feet wide and 2 feet deep, flowing through rocky channel full of debris.

Utilization—Regulating reservoir for mill, on outlet, about one-half mile below lake; private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Private control of land to shore line only; water rights owned by W. H. Tanner, operator of mill on outlet.

ELK LAKE, LITTLE; old names LATHROPS LAKES, ONE OF; also TWIN LAKES, ONE OF

Location—Northwestern Dimock Township, central Susquehanna County, on Lake Stream, Upper North Branch Susquehanna Subbasin.

Type—Natural.

Drainage Area—Approximately 0.9 square mile.

Elevation—1367 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Circular, irregular; maximum diameter 1,600 feet.

Area—45.6 acres.

Capacity—755 acre-feet or 246,000,000 gallons.

Depth—Prevailing 25 feet; maximum 46 feet.

Dam—None.

Topography—Steep hills on all sides rising to maximum height of 150 feet. Marshy ground almost completely surrounds shore. Approximately 50% of surrounding country covered with second growth and virgin timber, 50% cultivated. Two boat houses near lake, 1 to 5 feet above water surface.

Inlet—Small stream, dry in summer months, about 2 feet wide and 6 inches deep, flows through marshy ground. Also fed by several springs.

Outlet—Lake Stream, about 30 feet wide and 2 feet deep, flowing through narrow valley over muddy bed.

Utilization—Boating and fishing; sawmill.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically; owing to small drainage area, would not warrant expense for increased storage.

Ownership—Private parties own land surrounding lake, limited to shore line.

ELK POND

Location—Southeastern Clinton Township, west central Wayne County, on tributary of Waymart Branch, Upper Delaware Sub-basin.

Type—Originally natural; dam flooded additional area.

Drainage Area—Approximately 0.7 square mile.

Elevation—1410 (Bar.) referred to U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 4,435 feet; maximum width 3,185 feet.

Area—168.4 acres.

Capacity—2,923 acre-feet or 952,000,000 gallons.

Depth—Prevailing 26 feet; maximum 48 feet.

Dam—Vertical dry stone wall, 100 feet long, 15 feet wide, backed with earth and stone fill. Wooden sluiceway regulates height of water.

Topography—Surrounding country generally low with maximum rise of 200 feet on east side; about 50% covered with second growth timber, 50% cultivated. Near pond are nine summer cottages and one ice house, 2 to 30 feet above water surface.

Inlet—Fed by springs.

Outlet—Tributary of Waymart Branch, 6 feet wide, 6 inches deep, flowing through clean channel.

Utilization—Ice harvesting and summer resort. Originally feeder for D. & H. canal.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically.

Ownership—Patrick McNulty, Honesdale, claims control.

ELY LAKE (See SOUTH POND)

EMORY POND

Location—Eastern Jefferson Township, east central Lackawanna County, on tributary of West Branch Wallenpaupack Creek, Upper Delaware Sub-basin.

Area—Approximately 5 acres.

FAIRCHILDS DAM

Location—Southeastern Newport Township, central Luzerne County, on branch of Newport Creek, Lower North Branch Susquehanna Sub-basin.

Type—Artificial.

Area—Approximately 10 acres.

FAIRVIEW, LAKE (See BIG POND)

FIDDLE LAKE

Location—Southwestern Ararat Township, east central Susquehanna County, on headwaters of Fiddle Lake Creek, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1986 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, narrow and rather irregular; maximum length 3,620 feet; maximum width 1,260 feet.

Area—63.1 acres.

Capacity—606 acre-feet or 197,000,000 gallons.

Depth—Prevailing 12 feet; maximum 22 feet.

Dam—None.

Topography—Ground on three sides rises gradually, reaching maximum height of 50 feet on one side. Approximately 25% of country near shore covered with second growth timber, 75% under cultivation. Near lake are 12 summer cottages, 8 to 15 feet above water surface.

Inlet—Fed by springs.

Outlet—Fiddle Lake Creek, about 3 feet wide, 1 foot deep, flowing through muddy channel free of debris.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; ground at outlet low. It was intended at one time to raise water 10 feet but project was abandoned.

Ownership—Consolidated Water Supply Co., Scranton, and others; limited to shore line.

FINN POND, or BAYLOR POND

Location—West central Benton Township, northwestern Lackawanna County, on Sheik Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural; dam caused only slight increase in area.

Drainage Area—Approximately 2.4 square miles.

Elevation—1170 (Bar.) referred to U. S. G. S. datum.

Shape—Very irregular; maximum length 4,000 feet; maximum width 1,600 feet.

Area—100.3 acres.

Capacity—2,365 acre-feet or 770,000,000 gallons.

Depth—Prevailing 47 feet; maximum 70 feet.

Dam—Vertical dry stone wall, 75 feet long, 6 feet high, backed with earth and stone fill. Spillway provided.

Topography—Surrounding country generally high on three sides, rising gradually to maximum height of 400 feet; mostly under cultivation, small percentage covered with second growth timber. Public road parallels two sides. Eight dwellings near pond, 10 to 30 feet above water surface.

Inlet—Sheik Creek, 3 feet wide, 6 inches deep, flowing through marshy ground.

Outlet—Sheik Creek, 6 feet wide, 6 inches deep, flowing through clean rocky channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good. However, the increased storage would not warrant cost of rebuilding roads, etc.

Ownership—W. B. Baylor Est., Scranton, claims control of surrounding land.

FIRST POND (See FOREST LAKE)

FIVE MILE POND

Location—Southwestern Preston Township, northwestern Wayne County, on branch of Lackawanna River, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.6 square mile.

Elevation—2030 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Oval, irregular; maximum length 2,375 feet; maximum width 1,375 feet.

Area—48.1 acres.

Capacity—434 acre-feet or 141,000,000 gallons.

Depth—Prevailing 15 feet; maximum 17 feet.

Dam—None.

Topography—Pond lies near top of very high ground; surrounding country rises rapidly to maximum height of 20 feet; approximately 50% of watershed covered with second growth timber, 50% cultivated. The N. Y. O. & W. R. R. parallels one shore. There are also three ice houses, 3 to 6 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Lackawanna River, 8 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Ice harvesting, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None, topographically.

Ownership—Consumers Ice Co., Scranton, claims control.

FLARTSOCK POND

Location—South central Liberty Township, south central Tioga County, on Blacks Creek, Middle West Branch Susquehanna Sub-basin.

Area—Approximately 4 acres.

FLOW POND (See OSTERHOUT POND)

FORD POND

Location—North Newton Township, east central Lackawanna County, on Hartley Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—0.9 square mile.

Elevation—1155 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, maximum length 4,185 feet; maximum width 1,020 feet.

Area—72.2 acres.

Capacity—207 acre-feet or 67,000,000 gallons.

Depth—Prevailing 6 feet; maximum 10 feet.

Dam—Vertical dry stone wall, 150 feet long, 10 feet high, with earth and stone fill. Timber spillway provided.

Topography—Hills rise gradually to maximum height of 300 feet. Public road parallels two sides, 1 to 10 feet above water surface; practically all surrounding country under cultivation. Three dwellings near lake, 10 to 20 feet above water surface.

Inlet—Hartley Creek, 3 feet wide, 6 inches deep, flowing through clean channel.

Outlet—Hartley Creek, 3 feet wide, 6 inches deep, flowing swiftly through clean rocky channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Wm. Ford, Scranton, claims control.

FOREST LAKE (See WOLF LAKE)

FOREST LAKE; old name FIRST POND

Location—Western Lehman Township, south central Pike County, on branch of Little Bushkill Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 2.1 square miles.

Elevation—1060 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, irregular; maximum length 3,245 feet; maximum width 1,550 feet.

Area—77.7 acres.

Capacity—1,222 acre-feet or 398,000,000 gallons.

Depth—Prevailing 24 feet; maximum 30 feet.

Dam—None.

Topography—Steep hills on two sides reaching maximum height of 100 feet; slightly swampy around outlet. Practically entire surrounding country covered with second growth timber. One club house and numerous cottages, 40 feet above water surface; one boat house at water edge.

Inlet—Branch of Little Bushkill Creek, 5 feet wide, 1 to 2 feet deep. Also fed by springs.

Outlet—Branch of Little Bushkill Creek, 6 feet wide, 1 to 2 feet deep, flowing through marshy land for short distance, then falling rapidly through boulder-strewn channel.

Utilization—Private ice and water supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Could be increased; high banks at outlet.

Ownership—Arthur Lederet claims control.

FOREST LAKE

Location—Eastern Forest Lake Township, northwestern Susquehanna County, on Forest Lake Creek, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural, dam caused considerable increase in area of lake.

Drainage Area—Approximately 0.7 square mile.

Elevation—1525 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Regular, long, triangular; maximum length 3,100 feet; maximum width 1,060 feet.

Area—46.2 acres.

Capacity—609 acre-feet or 198,000,000 gallons.

Depth—Prevailing 19 feet; maximum 25 feet.

Dam—Earth and stone embankment, approximately 125 feet long, 10 feet high, with roadway on crest. Wooden sluiceway and overflow channel regulate height of water.

Topography—Surrounding country on three sides rises rapidly in places and reaches maximum height of approximately 175 feet; 15% covered with second growth and virgin timber, 85% cultivated. Public road along one side for about 1,000 feet, 5 to 10 feet above water surface. Near lake are 5 farm dwellings with outbuildings and 12 summer cottages, 5 to 20 feet above water surface.

Inlet—Fed by springs.

Outlet—Forest Lake Creek, about 10 feet wide and 6 inches to 1 foot deep, flowing through clean gravelly channel.

Utilization—Private ice supply and summer resort.

Navigation—Sailboats and rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Private control of lake and surrounding country.

FOUNTAIN LAKE

Location—Southern Fairview Township, east central Luzerne County, on branch of Nescopeck Creek, Lower North Branch Susquehanna Sub-basin.

Area—Approximately 10 acres.

FOUR MILE POND

Location—Southern Scott Township, northwestern Wayne County, on branch of Balls Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.0 square mile.

Elevation—2565 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Rectangular, irregular; maximum length 2,810 feet; maximum width 1,915 feet.

Area—70.2 acres.

Capacity—1,206 acre-feet or 393,000,000 gallons.

Depth—Prevailing 32 feet; maximum 42 feet.

Dam—None.

Topography—Surrounding country generally low, rising gradually to maximum height of 30 feet; covered with second growth timber.

Inlet—Fed by springs.

Outlet—Branch of Balls Creek, 6 feet wide, flowing through open channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Several private parties claim control.

FOX POND

Location—Central Jackson Township, northeastern Susquehanna County, on Drinker Creek, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural.

Drainage Area—Approximately 1.0 square mile.

Elevation—1602 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular, oval; maximum length 1,820 feet; maximum width 1,100 feet.

Area—24.0 acres.

Capacity—144 acre-feet or 47,000,000 gallons.

Depth—Prevailing 6.0 feet; maximum 10.0 feet.

Dam—Concrete, about 100 feet long, 20 feet high. Outlet pipes regulate height of water.

Topography—Steep hills on two sides. Ground rises to maximum height of about 200 feet on one side. Approximately 50% of surrounding country covered with second growth timber; 50% cultivated. Two dwellings and one barn near lake, 15 to 30 feet above water surface.

Inlet—Drinker Creek flowing through swampy ground, approximately 10 feet wide, 6 inches deep, muddy bottom. Also fed by springs.

Outlet—Drinker Creek flowing through rocky channel full of debris, about 15 feet wide and 1 foot deep.

Utilization—Private ice supply; water supply for Susquehanna Borough.

Navigation—None.

Opportunity for Storage—None; low country on north side.

Ownership—Recently purchased by Canawacta Water Supply Co., not limited to shore line.

FROST POND (See LOWER DAM)

GALILEE POND

Location—Northern Damascus Township, northwestern Wayne County, on Galilee Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.9 square miles.

Elevation—1240 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, regular; maximum length 2,000 feet; maximum width 665 feet.

Area—20.0 acres.

Capacity—65 acre-feet or 21,000,000 gallons.

Depth—Prevailing 7 feet; maximum 10 feet.

Dam—None.

Topography—Surrounding country rises gradually on all sides reaching maximum height of 80 feet; mostly under cultivation. One dwelling, near pond, 50 feet above water surface.

Inlet—Galilee Creek, 8 feet wide, 2 feet deep, flowing through clean channel.

Outlet—Galilee Creek, 8 feet wide, 4 feet deep, flowing through rocky channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Could be slightly increased; high banks at outlet.

Ownership—Private control claimed.

GANOGA LAKE

Location—Southern Colley Township, southeastern Sullivan County, on small branch of Kitchen Creek, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.5 square miles.

Elevation—2,320, furnished by local authority.

Shape—Oval and long, regular; maximum length 3,720 feet; maximum width 1,025 feet.

Area—78.8 acres.

Capacity—373 acre-feet or 121,500,000 gallons.

Depth—Prevailing 10 feet; maximum 13 feet.

Dam—None.

Topography—Steeply rising ground on all sides reaching maximum height of 80 feet; practically all covered with second growth timber. Public road parallels two sides, 10 to 70 feet above water surface. One boat house, one ice house and several summer cottages near lake, 1 to 20 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Kitchen Creek, 8 feet wide, 1.5 feet deep, flowing through clean channel.

Utilization—Ice harvesting and pleasure purposes.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Col. R. B. Ricketts, Forty Fort, claims control.

GIFFORDS POND

Location—Smethport Borough, central Keating Township, central McKean County, Upper Allegheny Sub-basin.

Area—Approximately 4 acres.

GILES, LAKE

Location—Central Blooming Grove Township, west central Pike County, on Brushy Bridge Run, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.9 square mile.

Elevation—1406 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Irregular; maximum length 3,290 feet; maximum width 2,465 feet.

Area—114.3 acres.

Capacity—3,579 acre-feet or 1,166,000,000 gallons.

Depth—Prevailing 42 feet; maximum 73 feet.

Dam—Timber-crib, 125 feet long, 4 feet high, earth and stone fill. Timber sluiceway regulates height of water. Dam not in use. Water kept at original level.

Topography—Surrounding country on one side generally low, rising steeply on other side to maximum height of 130 feet; approximately 98% densely wooded with second growth timber, 2% cultivated. Large club house and several cottages near lake, 50 to 130 feet above water surface; boat houses at water edge.

Inlet—Fed by springs.

Outlet—Brushy Bridge Run, 15 to 20 feet wide, 1 to 2 feet deep, flowing through rocky channel strewn with debris.

Utilization—Private ice and water supply; summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet. Present dam, if used, would raise water 5 to 6 feet.

Ownership—The Blooming Grove Hunting & Fishing Club owns and controls lake and practically all surrounding land.

GLASS POND NO. 1

Location—Western Dyberry Township, south central Wayne County, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.6 square mile.

Elevation—1445 (Bar.) referred to U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 2,610 feet; maximum width 1,600 feet.

Area—55.6 acres.

Capacity—835 acre-feet or 272,000,000 gallons.

Depth—Prevailing 30 feet; maximum 37 feet.

Dam—Concrete, 110 feet long, 3 feet high. Spillway provided for regulation.

Topography—Gradually rising ground on three sides reaching maximum height of 120 feet; about 30% covered with second growth timber, 70% cultivated.

Inlet—Small stream, 3 feet wide, 6 inches deep, flowing swiftly through clean rocky channel.

Outlet—No overflow, water diverted into water supply main for Honesdale.

Utilization—Private ice supply, boating, fishing and water supply for Honesdale.

Navigation—Rowboats.

Opportunity for Storage—Not good; small drainage area.

Ownership—Honesdale Consolidated Water Co., Honesdale, claims control.

GLASS POND NO. 2

Location—Western Dyberry Township, south central Wayne County, Upper Delaware Sub-basin.

Type—Originally natural; dam flooded additional area.

Drainage Area—Approximately 0.2 square mile.

Elevation—1530 (Bar.) referred to U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 2,400 feet; maximum width 1,430 feet.

Area—49.7 acres.

Capacity—500 acre-feet or 163,000,000 gallons.

Depth—Prevailing 18 feet; maximum 30 feet.

Dam—Dry stone wall, 135 feet long, 8 feet high, backed with earth fill. Spillway and water supply main regulate height of water.

Topography—Surrounding country generally low rising on one side to maximum height of 70 feet; approximately 40% covered with second growth timber, 60% cultivated.

Inlet—Fed by springs.

Outlet—Small stream, 3 feet wide, 6 inches deep, flowing through clean rocky channel to Glass Pond No. 1.

Utilization—Water supply for Honesdale.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically, but small drainage area could not supply greatly increased storage.

Ownership—Honesdale Consolidated Water Co., Honesdale, claims control.

GLASS POND NO. 3

Location—Northwestern Dyberry Township, central Wayne County, on branch of West Branch Lackawaxen River, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.2 square mile.

Elevation—1550 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 2,765 feet; maximum width 1,700 feet.

Area—52.0 acres.

Capacity—1,106 acre-feet or 360,000,000 gallons.

Depth—Prevailing 35 feet; maximum 57 feet.

Dam—Concrete, 60 feet long, 2 feet high. Spillway and water main regulate height of water.

Topography—High ground on three sides rising to maximum height of 100 feet; about 70% forested with second growth timber, 30% cultivated.

Inlet—Fed by springs.

Outlet—Branch of West Branch Lackawaxen River, 8 feet wide, 6 inches deep, flowing through clean rocky channel.

Utilization—Private ice supply, boating, fishing and water supply for Honesdale.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically, but drainage area small.

Ownership—Honesdale Consolidated Water Co., Honesdale, claims control.

GLENBURN POND

Location—Glenburn Borough, west central Lackawanna County, on tributary of South Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 2.1 square miles.

Elevation—1025 (Bar.) referred to U. S. G. S. datum.

Shape—Triangular, regular; maximum length 2,360 feet; maximum width 950 feet.

Area—29.1 acres.

Capacity—138 acre-feet or 45,000,000 gallons.

Depth—Prevailing 9 feet; maximum 15 feet.

Dam—Vertical dry stone wall, 150 feet long, 25 feet high, faced with concrete. Concrete spillway provided.

Topography—High ground on all sides rising gradually to maximum height of 300 feet. State road parallels two sides, 4 to 20 feet above water surface. Railroad siding on one side, 4 feet above water surface. Very little of surrounding country wooded, practically all cleared but not cultivated. Two ice houses, creamery and four dwellings near lake, 2 to 30 feet above water surface.

Inlet—Tributary of South Branch Tunkhannock Creek, 8 feet wide, 1.5 feet deep, flowing through channel free of debris.

Outlet—Tributary of South Branch Tunkhannock Creek, 15 feet wide, 1 foot deep, flowing through rocky channel full of debris.

Utilization—Ice harvesting, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically; increase would cause considerable damage to property on shore.

Ownership—Palmer Est., Glenburn, claims control.

GOOSE POND

Location—Southeastern Greene Township, west central Pike County, on Goose Pond Run, Upper Delaware Sub-basin.

Type—Natural.

Area—Approximately 10 acres.

GOOSE POND

Location—Southern Paupack Township, central Wayne County, on branch of Wallenpaupack Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 2.5 square miles.

Elevation—1330 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 2,400 feet; maximum width 1,335 feet.

Area—41.6 acres.

Capacity—533 acre-feet or 174,000,000 gallons.

Depth—Prevailing 19 feet; maximum 27 feet.

Dam—None.

Topography—High ground on three sides rising rapidly to maximum height of 80 feet. Entire surrounding country covered with second growth timber, slightly marshy around inlet. One cottage on shore.

Inlet—Branch of Wallenpaupack Creek, 15 feet wide, 1 foot deep, flowing through marshy ground. Also fed by springs.

Outlet—Branch of Wallenpaupack Creek, 15 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Private control claimed; not limited to shore line.

GORMAN POND; also called BAIRDS LAKE or BARKLEY LAKE

Location—Southeastern Damascus Township, east central Wayne County, on headwaters of tributary to Delaware River, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1185 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, regular; maximum length 2,135 feet; maximum width 1,260 feet.

Area—43.7 acres.

Capacity—799 acre-feet or 260,000,000 gallons.

Depth—Prevailing 35 feet; maximum 46 feet.

Dam—None.

Topography—Low ground on three sides rising to maximum height of 12 feet. Public road parallels one shore, 5 feet above water surface. About 50% of surrounding country covered with second growth timber, 50% under cultivation. Two summer cottages and one dwelling near pond.

Inlet—Fed by springs.

Outlet—Tributary to Delaware River, 16 feet wide, 2 feet deep, flowing through marshy ground.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Simon J. Barkley, Narrowsburg, N. Y., claims control.

GOULDSBORO ICE POND (See WATAWGO, LAKE)

GRANT LAKE or MEHOOPANY, LAKE

Location—East central Colley Township, eastern Sullivan County, on branch of Mehoopany Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.6 square mile.

Elevation—2,050 (Bar.) referred to L. V. R. R. levels.

Shape—Circular, irregular; approximate diameter 2,000 feet.

Area—68.8 acres.

Capacity—444 acre-feet or 145,000,000 gallons.

Depth—Prevailing 10 feet; maximum 15 feet.

Dam—None.

Topography—Gradually rising ground on all sides reaching maximum height of approximately 100 feet. Shore swampy on all sides. Surrounding country covered with second growth timber.

Inlet—Fed by springs.

Outlet—Branch of Mehoopany Creek, 3 feet wide, 1 foot deep, flowing sluggishly through clean channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Private control.

GRASSY LAKE

Location—Central Lehigh Township, south central Lackawanna County, on Pond Creek, Middle Delaware Sub-basin.

Area—Approximately 5 acres.

GRASSY POND

Location—Southeastern Ross Township, northwestern Luzerne County, on branch of Hunlock Creek, Lower North Branch Susquehanna Sub-basin.

Area—Approximately 13 acres.

GRASSY POND (See EARNEST, LAKE)

GRAVEL POND

Location—Glenburn Borough, western Lackawanna County, on branch of Dalton Run, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.6 square mile.

Elevation—1170 (Bar.) referred to U. S. G. S. datum.

Shape—Very irregular; maximum length 2,830 feet; maximum width 1,250 feet.

Area—57.7 acres.

Capacity—895 acre-feet or 292,000,000 gallons.

Depth—Prevailing 30 feet; maximum 40 feet.

Dam—None.

Topography—Surrounding country rises gradually on all sides reaching maximum height of 200 feet. South side covered with second growth timber, remainder under cultivation. On shore two cottages and two farm houses, 6 to 50 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Dalton Run, 6 feet wide, 1 foot deep, flowing swiftly through clean channel.

Utilization—Private ice supply and summer camping ground.

Navigation—Rowboats.

Opportunity for Storage—Could be increased; steep banks on outlet.

Ownership—Private control.

GREELY LAKE

Location—Southeastern Lackawaxen Township, north central Pike County, on Billiard Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 7.1 square miles.

Elevation—1169 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, narrow and irregular; maximum length 6,680 feet; maximum width 1,380 feet.

Area—60.3 acres.

Capacity—202 acre-feet or 66,000,000 gallons.

Depth—Prevailing 4 feet; maximum 7 feet.

Dam—Timber-crib, 225 feet long, 12 feet high, with earth and stone fill. Timber sluiceway provided.

Topography—Surrounding country generally high rising steeply to maximum height of 200 feet; approximately 50% covered with second growth timber, 50% under cultivation. Public road crosses neck of lake, 400 feet long, 3 to 4 feet above water surface. Several summer cottages and farms near lake, 20 to 60 feet above water surface.

Inlet—Billiard Creek, 7 to 8 feet wide, 1 to 2 feet deep, flowing through marshy ground.

Outlet—Billiard Creek, 15 to 16 feet wide, 1 to 3 feet deep, flowing with good fall through rocky channel.

Utilization—Private ice and water supply and summer resort; used also as water storage for sawmill on Billiard Creek.

Navigation—Rowboats.

Opportunity for Storage—Could be slightly increased; steep banks at outlet; would flood farm land and public road.

Ownership—Private control.

GRIFFITHS DAM

Location—Central Jackson Township, east central Susquehanna County, on branch of Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Area—Approximately 7 acres.

HALF MOON POND

Location—Northeastern Tunkhannock Township, west central Monroe County, headwaters of Upper Tunkhannock Creek, Middle Delaware Sub-basin.

Type—Natural.

Area—Approximately 15 acres.

HANDSOME POND

Location—Northeastern Benton Township, northwestern Lackawanna County on tributary of East Branch Tunkhannock Creek.

Type—Natural.

Drainage Area—Approximately 0.2 square mile.

Elevation—1280 (Bar.) referred to U. S. G. S. datum.

Shape—Oval, regular; maximum length 1,700 feet; maximum width 710 feet.

Area—23.1 acres.

Capacity—233 acre-feet or 76,000,000 gallons.

Depth—Prevailing 23 feet; maximum 27 feet.

Dam—None.

Topography—High ground on all sides rising gradually to maximum height of 100 feet, practically all forested with second growth timber.

Inlet—Fed by springs.

Outlet—Tributary of East Branch Tunkhannock Creek, 3 feet wide, 6 inches deep, flowing through clean channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low and marshy ground at outlet.

Ownership—Private control.

HANKINS POND

Location—Southern Mount Pleasant Township, west central Wayne County, on tributary of the West Branch Lackawaxen River, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.9 square miles.

Elevation—1480 (Bar.) referred to U. S. G. S. datum.

Shape—Irregular; maximum length 3,250 feet; maximum width 1,260 feet.

Area—67.4 acres.

Capacity—359 acre-feet or 117,000,000 gallons.

Depth—Prevailing 12 feet; maximum 15 feet.

Dam—Earth and stone, 600 feet long, 25 feet high. Sluiceway provided for regulation of height of water.

Topography—High ground on three sides rising about 150 feet above water surface. Public road parallels outlet about 30 feet below elevation top of dam. Approximately 75% of surrounding country covered with second growth timber, 25% cultivated. One house and one barn on watershed.

Inlet—Tributary of West Branch Lackawaxen River, 6 feet wide, 6 inches deep, flowing through clean channel.

Outlet—Tributary of West Branch Lackawaxen River, 6 feet wide, 6 inches deep, flowing through rocky channel.

Utilization—Private ice supply, boating, fishing and feeder for D. & H. canal.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Unknown.

Lake Laura, Pike County
(See page 98)

East Lake, Susquehanna County
(See page 59)

HARDING POND

Location—Southeastern Lenox Township, southeastern Susquehanna County, on tributary of East Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 3 acres.

HARLIS POND

Location—Northwestern Newton Township, west central Lackawanna County, on Hartley Creek, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 3 acres.

HARMONY, LAKE (See BIG POND)

HARTFORD POND

Location—Southwestern Salem Township, southwestern Wayne County, on Jones Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 20.0 square miles.

Elevation—1370 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, irregular; maximum length 5,250 feet; maximum width 880 feet.

Area—51.9 acres.

Capacity—155 acre-feet or 50,000,000 gallons.

Depth—Prevailing 7 feet; maximum 12 feet.

Dam—Timber-crib, 85 feet long, 12 feet high, with earth and stone fill. Spillway and sluiceway are provided.

Topography—Generally high ground on all sides rising rapidly to maximum height of 200 feet. Public road parallels one side. Entire surrounding country under cultivation. Sawmill located near outlet.

Inlet—Jones Creek, 12 feet wide, 1 foot deep, flowing through very marshy ground.

Outlet—Jones Creek, 20 feet wide, 3 feet deep, flowing through rocky channel.

Utilization—Private ice supply, boating, fishing and water power for sawmill.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Hartford Est., Hollisterville, claims control.

HARTLEYS LAKE

Location—Southern Lenox Township, south central Susquehanna County, on tributary of East Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural. Old dam destroyed.

Drainage Area—Approximately 0.4 square mile.

Elevation—1115 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Circular, regular; diameter approximately 900 feet.

Area—21.3 acres.

Capacity—322 acre-feet or 105,000,000 gallons.

Depth—Prevailing 22 feet; maximum 28 feet.

Dam—Dilapidated.

Topography—Shores marshy since destruction of dam. Gradually rising ground on three sides reaching maximum height of 40 feet: approximately 30% thickly covered with second growth timber, 70% cultivated. Three farm dwellings near lake, 15 to 30 feet above water surface.

Inlet—Fed by springs.

Outlet—Tributary of East Branch Tunkhannock Creek, 3 feet wide, 1 foot deep, flowing through marshy ground; channel full of debris.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Could be increased, if drainage area warranted same.

Ownership—Private control.

HARVEY LAKE

Location—Northeastern Lake Township, north central Luzerne County, on Harvey Creek, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 7.2 square miles.

Elevation—1226, referred to U. S. G. S. datum.

Shape—Very irregular; maximum length 15,640 feet; maximum width 4,960 feet.

Area—658.6 acres.

Capacity—23,732 acre-feet or 7,733,000,000 gallons.

Depth—Prevailing 50 feet; maximum 102 feet.

Dam—Stone masonry 120 feet long, 4 feet high. Two spillways are provided.

Topography—Hills on all sides, rising steeply in places and reaching maximum height of 410 feet on south. Public road parallels shore entirely around lake. L. V. R. R. on one side approximately

30 feet above water surface. Practically all surrounding country covered with second growth timber. Around margin are 3 hotels, 200 cottages and 60 boat houses; majority at least 15 feet above water surface.

Inlets—Two small streams, 4 to 8 feet wide, 6 inches deep, flowing through clean channels. Also fed by springs.

Outlet—Harvey Creek, 20 feet wide, 6 inches deep, flowing swiftly through clean channel.

Utilization—Private ice supply; summer resort; water supply for Nanticoke.

Navigation—Four steamboats, forty motor boats and rowboats; steamers carry passengers and freight between points on lake.

Opportunity for Storage—Good topographically; appreciable increase in height of water would damage considerable valuable property.

Ownership—Private parties claim land to shore line of lake. Commonwealth owns lake.

HATHAWAYS POND (See OREONOBA LAKE)

HATTONS MARSH

Location—Southeastern Colley Township, east central Sullivan County, on branch of Mehoopany Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 3 acres.

HAWKEYE POND; or TOBYHANNA STORAGE AND SUPPLY CO. DAM NO. 2

Location—Southeastern Coolbaugh Township, north central Monroe County, on Tobyhanna Creek, Middle Delaware Sub-basin.

Type—Artificial.

Area—Approximately 12 acres.

HAZARD POND

Location—Roaring Brook Township, Lackawanna County, headwaters of Stafford Meadow Brook, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Area—7.2 acres.

HEART LAKE; old name MUD POND

Location—Northern Scott Township, north central Lackawanna County, on Rush Brook, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1551 referred to U. S. G. S. datum.

Shape—Triangular, very irregular; maximum length 1,825 feet; maximum width 1,225 feet.

Area—30.5 acres.

Capacity—265 acre-feet or 86,000,000 gallons.

Depth—Prevailing 11 feet; maximum 28 feet.

Dam—None.

Topography—Steep hills on all sides rising gradually to maximum height of 75 feet; slightly marshy at one end; approximately 95% cultivated, 5% covered with second growth timber. Public road parallels one side for 1,500 feet, 3 to 5 feet above water surface. One bathing house near water edge and eight farms, 20 to 40 feet above water surface.

Inlet—Rush Brook, 2 feet wide, 3 to 4 inches deep, flowing through clean channel. Also fed by springs.

Outlet—Rush Brook, 4 feet wide, 4 to 6 inches deep, flowing through clean rocky channel.

Utilization—Private ice supply, boating and fishing, also water supply for Borough of Jermyn.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Private control claimed. Consolidated Water Supply Co., Scranton, controls water rights.

HEART LAKE

Location—Northeastern Bridgewater and western New Milford townships, central Susquehanna County, on Hop Bottom Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.9 square mile.

Elevation—1811 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular, maximum length 2,075 feet; maximum width 1,340 feet.

Area—43.6 acres.

Capacity—611 acre-feet or 199,000,000 gallons.

Depth—Prevailing 20 feet; maximum 34 feet.

Dam—None.

Topography—Surrounding country rises gradually to maximum height of 50 feet. Around outlet ground exceedingly low. Approximately 50% of surrounding country wooded with second growth timber, 50% under cultivation. Forty cottages and an ice house on shore, 5 to 30 feet above water surface.

Inlet—Fed by springs.

Outlet—Hop Bottom Creek, about 10 feet wide and 1 foot deep, small stream flowing through clean channel.

Utilization—Ice harvesting and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; ground around outlet low.

Ownership—Private control, limited to shore line.

HEINZ POND, or IDA, LAKE

Location—Northwestern Buck Township, east central Luzerne County, on branch of Shades Creek, Middle Delaware Sub-basin.

Type—Natural.

Elevation—1900 (Bar.) referred to U. S. G. S. datum.

Area—15.5 acres.

HELLS HALF-ACRE POND

Location—Northern Lenox Township, southeastern Susquehanna County, on branch of Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Area—Approximately 18 acres.

HEMLOCK POND

Location—Southeastern Blooming Grove Township, central Pike County, headwaters of branch of Rocky Hill Creek, Upper Delaware Sub-basin.

Type—Natural.

Area—Approximately 10 acres.

HENRY, LAKE

Location—South central Covington Township, southeastern Lackawanna County, on Lake Henry Creek, Lower North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—0.9 square mile.

Elevation—1906 referred to U. S. G. S. datum.

Area—69.4 acres.

Capacity—629 acre-feet or 205,000,000 gallons.

Dam—Masonry and earth embankments.

Utilization—Storage, water supply.

Ownership—Scranton Gas and Water Co., Scranton.

HENRY, LAKE

Location—Southwestern Lake Township, southwestern Wayne County, on branch of Jones Creek, Upper Delaware Sub-basin.

Type—Originally natural; dam considerably increased submergence.

Drainage Area—Approximately 9.0 square miles.

Elevation—1410 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, very irregular; maximum length 7,285 feet; maximum width 2,000 feet.

Area—256.4 acres.

Capacity—1,479 acre-feet or 482,000,000 gallons.

Depth—Prevailing 9 feet; maximum 23 feet.

Dam—Timber-crib, 90 feet long, 11.5 feet high, with earth and stone fill. Timber sluiceway regulated by gate provided.

Topography—Surrounding country generally low, rising gradually to maximum height of 40 feet. One end exceedingly marshy and full of stumps. About 50% of surrounding country covered with second growth timber, 50% under cultivation. One ice house and twelve cottages near lake.

Inlet—Branch of Jones Creek, 10 feet wide, 1 foot deep, flowing through clean channel.

Outlet—Branch of Jones Creek, 10 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Ice harvesting and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically.

Ownership—Several persons claim control.

HETZEL POND

Location—South central South Canaan Township, southwestern Wayne County, on small branch of Middle Creek, Upper Delaware Sub-basin.

Area—Approximately 6 acres.

HICKORY POND, BIG

Location—Central Preston Township, northwestern Wayne County, on headwaters of Equinunk Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1938 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Long, irregular; maximum length 3,170 feet; maximum width 1,120 feet.

Area—57.3 acres.

Capacity—585 acre-feet or 191,000,000 gallons.

Depth—Prevailing 20 feet; maximum 24 feet.

Dam—None.

Topography—Surrounding country, due to elevation of lake, generally low and flat, practically covered with second growth timber.

Inlet—Fed by springs.

Outlet—Equinunk Creek, 7 feet wide, flowing through channel of gravel and sand.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; ground at outlet low.

Ownership—Searles, Jadwin & Co., Honesdale, claim control.

HICKORY POND, LITTLE

Location—Central Preston Township, northwestern Wayne County, on headwaters of Equinunk Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.4 square mile.

Elevation—2050 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Oval, irregular; maximum length 2,710 feet; maximum width 1,500 feet.

Area—52.4 acres.

Capacity—749 acre-feet or 244,000,000 gallons.

Depth—Prevailing 26 feet; maximum 35 feet.

Dam—None.

Topography—High ground on three sides rising gradually to maximum height of 20 to 30 feet. Slightly swampy around outlet. Practically entire surrounding country covered with second growth timber.

Inlet—Fed by springs.

Outlet—Branch of Equinunk Creek, 6 feet wide, 1 foot deep, flowing through marshy ground, channel full of debris.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Searles, Jadwin & Co., Honesdale, claim control.

HIGH LAKE

Location—Preston and Buckingham townships, north central Wayne County, on High Lake Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.4 square mile.

Elevation—1495 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Triangular, regular; maximum length 2,575 feet; maximum width 1,470 feet.

Area—47.4 acres.

Capacity—497 acre-feet or 162,000,000 gallons.

Depth—Prevailing 20 feet; maximum 27 feet.

Dam—None.

Topography—Surrounding country rises gradually from water edge; practically all under cultivation. Public road parallels one side.

Inlet—Fed by springs.

Outlet—High Lake Creek, 4 feet wide, 1 foot deep, flowing rapidly through rocky channel.

Utilization—Summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Private control.

HIGHLAND LAKE

Location—North Shrewsbury Township, east central Lycoming County, at headwaters of Fox Run, Lower West Branch Susquehanna Sub-basin.

Area—Approximately 10 acres.

HILLIARD, LAKE (See SHOHOLA FALLS DAM)

HOADLEYS POND

Location—South central Canaan Township, east central Wayne County, on branch of Middle Creek, Upper Delaware Sub-basin.

Area—Approximately 15 acres.

HONEY POND

Location—South central Clinton Township, west central Wayne County, Upper Delaware Sub-basin.

Area—Approximately 5 acres.

HONEY HOLE POND

Location—Eastern Butler Township, south central Luzerne County, on Nescopeck Creek, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 10 acres.

HUFF POND

Location—Western Berlin Township, east central Wayne County, on branch of Lackawaxen River, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 2.3 square miles.

Elevation—1090 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, regular; maximum length 2,700 feet; maximum width 810 feet.

Area—33.8 acres.

Capacity—194 acre-feet or 63,000,000 gallons.

Depth—Prevailing 16 feet; maximum 18 feet.

Dam—None.

Topography—High ground on two sides rising rapidly from water edge to maximum height of 200 feet, outlet slightly swampy. About 50% of surrounding country covered with second growth timber, 50% cultivated. One dwelling near pond.

Inlet—Fed by springs.

Outlet—Branch of Lackawaxen River, 4 feet wide, 1 foot deep, flowing through swampy ground.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—William Williams, Honesdale, claims control.

HUNT LAKE (See LOCH EDEN LAKE)

HUNTERS LAKE

Location—Central Shrewsbury Township, southwestern Sullivan County, on headwaters of Trout Run, Lower West Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 2.8 square miles.

Elevation—1650, from local authority.

Shape—Long and narrow, rather irregular; maximum length 5,160 feet; maximum width 1,210 feet.

Area—90.2 acres.

Capacity—511 acre-feet or 166,000,000 gallons.

Depth—Prevailing 8 feet; maximum 19 feet.

Dam—Timber-crib, 650 feet long, 15 feet high, with earth and stone fill. Timber spillway and outlet pipe provided for regulation of height of water.

Topography—Surrounded by steep hills rising to maximum height of 200 feet. Marshy ground borders lake. Entire watershed wooded with second growth timber. One dwelling near lake, 60 feet above water surface.

Inlet—Fed by springs.

Outlet—Trout Run, 20 feet wide, 1 foot deep, flowing through clean rocky channel.

Utilization—Regulating reservoir for hydroelectric plant one mile below on outlet; fishing and boating.

Navigation—Rowboats.

Opportunity for Storage—Could be increased; steep banks on outlet.

Ownership—Eaglesmere Land Co., Eaglesmere, claims control.

HUNTERS RANGE POND, old name, TWELVE MILE POND

Location—Southern Porter Township, south central Pike County, on branch of Saw Creek or Middle Bushkill Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.0 square mile.

Elevation—1149 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Circular, irregular; approximate diameter 3,040 feet.

Area—190.0 acres.

Capacity—3,431 acre-feet or 1,118,000,000 gallons.

Depth—Prevailing 28 feet; maximum 35 feet.

Dam—Small plank weir, 6 feet long, 18 inches high, backed with earth.

Topography—Surrounded by gradually rising ground reaching maximum height of 150 feet; densely wooded with second growth timber. One summer home and one ice house on shore, 5 to 10 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Saw Creek, 7 to 8 feet wide, 1 foot deep, flowing through rocky channel.

Utilization—Private ice supply and private summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Mary S. Mack, Allentown, claims control.

HUNTINGDON POND, JOHN (See WELCOME LAKE)

ICE LAKE

Location—Southeastern Denison Township, southeastern Luzerne County, on Wright Creek, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 7.8 square miles.

Elevation—1235 (Bar.) referred to U. S. G. S. datum.

Shape—Very irregular; maximum length 3,060 feet; maximum width 1,250 feet.

Area—56.7 acres.

Capacity—251 acre-feet or 82,000,000 gallons.

Depth—Prevailing 8 feet; maximum 12 feet.

Dam—Timber-crib, 300 feet long, 8 feet high, with earth and stone fill. Two spillways are provided.

Topography—Surrounded by gradually rising ground reaching maximum height of 100 feet. Public road and L. V. R. R. parallel two sides, 4 to 10 feet above water surface. Practically all surrounding country covered with second growth timber.

Inlet—Wright Creek, 25 feet wide, 2 feet deep, flowing through clean channel in marshy ground.

Outlet—Wright Creek, 30 feet wide, 3 feet deep, flowing swiftly through clean rocky channel.

Utilization—Ice harvesting, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None.

Ownership—American Ice Co., Philadelphia, claims control.

IDA, LAKE (See HEINZ POND)

IDLEWILD, LAKE; old name LONG POND

Location—Northwestern Clifford Township, southeastern Susquehanna County, on tributary of East Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 2.1 square miles.

Elevation—1272 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, narrow, irregular; maximum length 3,520 feet; maximum width 1,250 feet.

Area—62.4 acres.

Capacity—506 acre-feet or 165,000,000 gallons.

Depth—Prevailing 12 feet; maximum 18 feet.

Dam—None.

Topography—Lake lies between two ranges of hills, with ground rising steeply for the most part to maximum height of 125 feet. About 35% of surrounding country densely wooded with second growth timber, 65% under cultivation. Four farm dwellings and one boat house on shore from 1 to 25 feet above water surface.

Inlet—Small stream, 3 feet wide and 6 inches deep, flowing through muddy channel, free of debris.

Outlet—Tributary of East Branch Tunkhannock Creek, 8 feet wide, 2 feet deep, flowing through rocky channel, full of debris.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Private control of land to shore line.

INDEPENDENT POND

Location—West central Preston Township, northwestern Wayne County, on tributary of East Branch Lackawanna River, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.2 square mile.

Elevation—2020 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Oval, regular; maximum length 2,575 feet; maximum width 680 feet.

Area—30.2 acres.

Capacity—368 acre-feet or 120,000,000 gallons.

Depth—Prevailing 27 feet, maximum 35 feet.

Dam—None.

Topography—Pond lies near top of high hills; surrounding country generally low, reaching maximum height of about 10 feet; 50% covered with second growth timber, 50% is under cultivation.

Inlet—Fed by springs.

Outlet—Tributary of East Branch Lackawanna River, 10 feet wide, flowing swiftly through clean channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Private control claimed, of surrounding land to water edge.

ISLAND POND

Location—Southern Scott Township, northwestern Wayne County, on Starrucca Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.8 square miles.

Elevation—1800 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Triangular, regular; maximum length 1,820 feet; maximum width 1,450 feet.

Area—35.8 acres.

Capacity—520 acre-feet or 169,000,000 gallons.

Depth—Prevailing 26 feet; maximum 29 feet.

Dam—None.

Topography—Surrounding country low, and flat, almost entirely under cultivation; timber growth scattered.

Inlet—Starrucca Creek, 3 feet wide, flowing through marshy ground. Also fed by springs.

Outlet—Starrucca Creek, 10 feet wide, flowing through clean channel.

Utilization—Private ice supply and boating.

Navigation—Rowboats.

Opportunity for Storage—None, extremely low surrounding country.

Ownership—Several persons own surrounding land to shore line.

JACKSON POND

Location—Central Damascus Township, east central Wayne County, on small tributary of North Branch Calkins Creek, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1335 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—11.0 acres.

JEAN, LAKE

Location—Northwestern Fairmount Township, northwestern Luzerne County, also southeastern Colley Township in southeastern Sullivan County, on branch of Kitchen Creek, Lower North Branch Susquehanna Sub-basin.

Type—Originally natural.

Drainage Area—Approximately 3.5 square miles.

Elevation—2220 (Bar.) referred to L. V. R. R. levels.

Shape—Very irregular; maximum length 10,560 feet; maximum width 1,980 feet.

Area—296.0 acres.

Depth—When water in lake is at maximum height, prevailing depth 10 feet, and maximum depth 20 feet.

Dam—Timber-crib, 300 feet long, 20 feet high, partly filled with stone. Timber spillway and sluiceway are provided for regulation of height of water. Earthen dike, 900 feet long, extends along shore from one end of dam.

Topography—Surrounding country rises gradually to maximum height of 90 feet; practically entire watershed covered with second growth timber.

Inlet—Branch of Kitchen Creek, 10 feet wide, 1 to 2 feet deep, flowing through clean channel.

Outlet—Branch of Kitchen Creek, 10 feet wide, 1 to 2 feet deep, flowing through clean channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Col. R. B. Ricketts, Forty Fort, claims control.

JEFFERS POND

Location—Western Lenox Township, south central Susquehanna County, on branch of Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Elevation—1082 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—Approximately 14.9 acres.

JONES LAKE

Location—Northern Bridgewater Township, central Susquehanna County, on Snake Creek, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural; dam increased area flooded.

Drainage Area—Approximately 1.0 square miles.

Elevation—1117 referred to State Highway Department levels from U. S. G. S. datum.

Shape—Elliptical, regular; maximum length 2,725 feet; maximum width 1,120 feet.

Area—45.3 acres.

Capacity—803 acre-feet or 262,000,000 gallons.

Depth—Prevailing 27 feet; maximum 39 feet.

Dam—Earth and stone embankment, 125 feet long, 15 feet high, with private roadway on crest. Stone spillway and outlet pipe provided for regulating height of water.

Topography—Surrounded by gradually rising ground reaching maximum height of 100 feet. Public road parallels two sides for 3,000 to 3,500 feet, 3 to 4 feet above water surface. Approximately 20% of surrounding country covered with second growth timber. 80% cultivated. Four farm houses and outbuildings, two ice houses, four cottages and five boat houses near lake, 1 to 15 feet above water surface.

Inlet—Snake Creek, 6 feet wide, 6 inches deep, flowing through clean marshy ground.

Outlet—Snake Creek, 10 feet wide, 2 feet deep, flowing through clean rocky channel.

Utilization—Water supply for Borough of Montrose, boating and fishing. Water company has installed pump raising water into reservoir.

Navigation—Rowboats.

Opportunity for Storage—None; low around outlet; also on north side of lake.

Ownership—Private control of land to shore line. The Consumers Water Company, Scranton, claims lake.

JONES LAKE (See BIG POND)

JULIET LAKE

Location—Southeastern Dingman Township, east central Pike County, on branch of Raymond Kill, Upper Delaware Sub-basin.

Type—Artificial.

Elevation—785 (Bar.) referred to U. S. G. S. datum.

Area—Approximately 9 acres.

KEENS LAKE; also called KEENS POND

Location—Northeastern Canaan Township, west central Wayne County, on tributary of Waymart Branch, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 15.8 square miles.

Elevation—1270 (Bar.) referred to U. S. G. S. datum.

Shape—Very irregular; maximum length 4,000 feet; maximum width 1,700 feet.

Area—86.4 acres.

Capacity—887 acre-feet or 289,000,000 gallons.

Depth—Prevailing 16 feet; maximum 31 feet.

Dam—Vertical dry stone wall, 100 feet long, 25 feet high, with earth and stone fill. Timber spillway and sluiceway provided for regulation of height of water.

Topography—Surrounded by hills rising rapidly and reaching maximum height of 200 feet. Public roads parallel two sides, 5 to 30 feet above water surface. Railroad crosses one end on small fill. Approximately 25% surrounding country covered with second growth timber, 75% cultivated. One ice house and five farm houses near lake, 10 to 50 feet above water surface.

Inlet—Tributary of Waymart Branch, 20 feet wide, 6 inches deep, flowing through clean rocky channel.

Outlet—Tributary of Waymart Branch, 25 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Ice harvesting, boating and fishing; was used, originally as feeder for D. & H. Canal.

Navigation—Rowboats.

Opportunity for Storage—Could be slightly increased.

Ownership—Patrick McNulty, Honesdale, claims control.

KEENS MILL POND

Location—North central Canaan Township, west central Wayne County, on Waymart Branch, Upper Delaware Sub-basin.

Area—Approximately 15 acres.

KELLOW POND (See WILCOX POND, UPPER)

KENTS ICE POND

Location—Pike Township, east central Potter County, Middle West Branch Susquehanna Sub-basin.

Area—Approximately 3 acres.

KETCHELLS POND (See VIEW, LAKE)

KEWAUNA, LAKE (See WINDFALL POND)

KINNEYS POND (See TUSCARORA LAKE)

KIZER POND

Location—South central South Canaan Township, southwestern Wayne County, on branch of Middle Creek, Upper Delaware Sub-basin.

Area—Approximately 10 acres.

KIZERS POND; also called KIZERS LAKE

Location—Eastern Jefferson Township, east central Lackawanna County, on branch of Jones Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 2.5 square miles.

Elevation—1580 (Bar.) referred to U. S. G. S. datum.

Shape—Long, triangular, regular; maximum length 4,020 feet: maximum width 1,575 feet.

Area—84.6 acres.

Capacity—250 acre-feet; 81,000,000 gallons.

Depth—Prevailing 5 feet; maximum 10 feet.

Dam—Vertical dry stone wall, 150 feet long, 9 feet high, with earth and stone fill; roadway on crest. Small spillway provided.

Topography—Surrounding country rises gradually reaching maximum height of 200 feet. Slightly swampy on one side. Public highway parallels two sides, 1 to 150 feet above water surface. Entire surrounding country covered with second growth timber. One dwelling near pond, 30 feet above water surface.

Inlet—Branch of Jones Creek, 5 feet wide, 1 foot deep, flowing through marshy ground.

Outlet—Branch of Jones Creek, 8 feet wide, 1 foot deep, flowing through clean open channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; due to low ground.

Ownership—J. D. Kizer, Scranton, claims control.

KLIENHANS MILL POND

Location—Western Blooming Grove Township, west central Pike County, on Blooming Grove Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 10.8 square miles.

Elevation—1488 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 2,100 feet; maximum width 1,084 feet.

Area—21.2 acres.

Capacity—148 acre-feet or 48,000,000 gallons.

Depth—Prevailing 8 feet; maximum 18 feet.

Dam—Vertical dry stone wall, 150 feet long, 19 feet high, backed with earth and stone fill. Spillway, or sluiceways, provided in three sections.

Topography—Pond lies between two ranges of hills rising to maximum height of 300 feet on one side and 50 feet on the other; 50% covered with second growth timber. Several dwellings below dam, on Blooming Grove Creek.

Inlet—Blooming Grove Creek, 20 to 25 feet wide, 1 to 2 feet deep, flowing through clean channel in marshy ground.

Outlet—Blooming Grove Creek, 25 to 30 feet wide, 1 to 2 feet deep, flowing through clean channel in gravel.

Utilization—None. Originally used for water storage, mill and tannery.

Navigation—None.

Opportunity for Storage—Could be increased, high banks at outlet.

Ownership—Kleinhan's heirs claim control.

KLONDYKE LAKE (Two parts)

Location—Northeastern Clifton Township, southeastern Lackawanna County, also western Lehigh Township, south central Wayne County, on Lehigh River, Middle Delaware Sub-basin.

Type—Artificial, in two parts, with dam between.

Drainage Area—Approximately 1.2 square miles.

Elevation—Upper 1889, lower 1884; (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, narrow, rather irregular; maximum length 2,660 feet; maximum width 1,110 feet.

Area—40.9 acres.

Capacity—363 acre-feet or 125,000.000 gallons.

Depth—Prevailing 6.2 feet; maximum 11 feet.

Dam—No. 1 or lower: Timber-crib, 600 feet long, 13 feet high, with earth and stone fill. A spillway with sluiceway in center, provided for regulation of height of water. No. 2 or middle: Timber-crib, about 500 feet long, 5 feet high, with earth and stone fill. Spillway and two wooden sluiceways provided.

Topography—Surrounding country generally flat, rising gradually to maximum height of 100 feet; approximately 90% covered with second growth timber, 10% cultivated. Two dwellings, one ice house and several barns near lake, 2 to 5 feet above water surface.

Inlets—Two branches of Lehigh River, 15 to 20 feet wide, 1 to 2 feet deep. One branch flows through marshy ground; the other through clean gravelly channel. Also fed by springs.

Outlet—Lehigh River, 10 feet wide, 2 feet deep, flowing through clean rocky channel.

Utilization—Ice harvesting.

Navigation—None.

Opportunity for Storage—None; low ground around outlet.

Ownership—Lackawanna Mountain Ice Co. claims control.

KNOB POND (See LAURA, LAKE)

LADORE, LAKE; or STANTON POND

Location—Central Canaan Township, west central Wayne County, on tributary of Waymart Branch, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 2.5 square miles.

Elevation—1350 (Bar.) referred to U. S. G. S. datum.

Shape—Very irregular; maximum length 8,000 feet; maximum width 4,270 feet.

Area—255.4 acres.

Capacity—1,606 acre-feet or 523,000,000 gallons.

Depth—Prevailing 8 feet; maximum 21 feet.

Dam—Concrete, 300 feet long, 22 feet high. Spillway and outlet pipe provided for regulation of height of water.

Topography—High surrounding ground rises to maximum height of 80 feet, practically all covered with second growth timber. Dock and one ice house on shore.

Inlet—Tributary of Waymart Branch, 6 feet wide, 6 inches deep, flowing through marshy ground, channel full of debris. Also fed by springs.

Outlet—Tributary of Waymart Branch, 20 feet wide, 6 inches deep, flowing through clean rocky channel.

Utilization—Private ice supply and summer amusement park.

Navigation—Small steam boats and motor boats.

Opportunity for Storage—Could be increased; steep banks at outlet; some damage to improvements.

Ownership—Patrick McNulty, Honesdale, claims control.

LAKEMONT PARK LAKE

Location—South central Logan Township, central Blair County, on Brush Run, Upper Juniata Sub-basin.

Type—Artificial.

Elevation—1000, referred to U. S. G. S. datum.

Area—12.8 acres.

LAKESIDE POND; old name, TARBLE POND

Location—Central Lathrop Township, south central Susquehanna County, on branch of Horton Creek, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural; dam caused considerable additional submergence.

Drainage Area—Approximately 1.9 square miles.

Elevation—1124 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular; irregular; maximum length 3,010 feet; maximum width 1,260 feet.

Area—49.9 acres.

Capacity—610 acre-feet or 199,000,000 gallons.

Depth—Prevailing 17 feet; maximum 26 feet.

Dam—Concrete and stone masonry, approximately 125 feet long, 18 feet high. Concrete spillway and outlet pipe provided for regulation of height of water.

Topography—Pond lies between two ranges of hills rising gradually to maximum height of about 125 feet. Public road along one side for approximately 3,000 feet, 3 to 4 feet above water surface. Almost entire watershed under cultivation, about 10% covered with second growth timber. Island of approximately one acre area, rises to maximum height of 5 or 6 feet above water surface. Public school, church and five farm houses with outbuildings near pond at height of 10 to 60 feet above water surface.

Inlet—Branch of Horton Creek about 4 feet wide and 1 foot deep, flowing through clean rocky channel. Also fed by springs.

Outlet—Branch of Horton Creek about 8 feet wide and 1 foot deep, flowing through clean rocky channel.

Utilization—Private ice supply, boating and fishing. Used as regulating reservoir for Nicholson Borough water supply. Height of water in lake varies from 10 to 12 feet during summer months.

Navigation—Rowboats.

Opportunity for Storage—Good; narrow valley at outlet.

Ownership—Several persons claim pond, not limited to shore line, water right reserved.

LATHROPS LAKES, ONE OF (See ELK LAKES, BIG and LITTLE)

LAURA, LAKE; old name KNOB POND

Location—Eastern Greene and southwestern Blooming Grove townships, west central Pike County, on Wells Creek, Upper Delaware Sub-basin.

Type—Originally natural; dam caused only slight increase in area.

Drainage Area—Approximately 1.1 square miles.

Elevation—1857 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 4,020 feet; maximum width 1,860 feet.

Area—122.2 acres.

Capacity—2,113 acre-feet or 688,000,000 gallons.

Depth—Prevailing 22 feet; maximum 35 feet.

Dam—Vertical dry masonry wall, 50 feet long, 4 feet high, backed with earth and stone fill. Small wooden sluiceway provided.

Topography—Surrounded by gradually rising ground reaching maximum height of 75 feet on south side. This is one of highest lakes in Pike County, lying near summit of Knob Mountain. Practically entire watershed densely wooded with second growth timber and brush. Four cottages at lake, 10 to 30 feet above water surface.

Inlet—Fed by springs.

Outlet—Wells Creek, 3 to 4 feet wide, 4 inches deep, flowing through slightly marshy ground, channel filled with debris.

Utilization—Private water and ice supply; private summer home.

Navigation—Rowboats.

Opportunity for Storage—None; low ground surrounding lake.

Ownership—Blooming Grove Hunting & Fishing Club, claims control of lake and surrounding country.

LAUREL LAKE; old name DURBENT LAKE; also MUD LAKE, (Two parts)

Location—Eastern Silver Lake Township, northwestern Susquehanna County, on branch of Silver Creek, Upper North Branch Susquehanna Sub-basin.

Type—Upper, natural; lower artificial; connected by narrow channel.

Drainage Area—Approximately 1.1 square miles.

Elevation—1588 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, very irregular; maximum length 4,200 feet; maximum width 805 feet.

Area—48.5 acres.

Capacity—371 acre-feet or 121,000,000 gallons.

Depth—Prevailing 11 feet; maximum 15 feet.

Dam—Vertical dry stone wall, approximately 80 feet long, 10 feet high, backed with earth and stone. Stone spillway provided.

Topography—Surrounding country rises rapidly to approximate elevation of 100 feet above water surface. Public road along one side for about 1,500 feet, 3 to 6 feet above water surface. Approximately 10% of country wooded with second growth timber, 90% cultivated. Small village near shore about 5 to 20 feet above water surface.

Inlets—Two small streams, 4 to 6 feet wide, 6 inches deep, flowing through clean rocky channels.

Outlet—Branch of Silver Creek, 8 feet wide and 6 inches deep, flowing through clean channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Upper or natural portion, private control limited to shore line; lower or artificial portion, control not limited to shore line.

LAUREL LAKE

Location—Central Damascus Township, northeastern Wayne County, on North Branch Calkins Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.6 square mile.

Elevation—1280 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, regular; maximum length 2,500 feet; maximum width 1,315 feet.

Area—51.0 acres.

Capacity—617 acre-feet or 201,000,000 gallons.

Depth—Prevailing 19 feet; maximum 28 feet.

Dam—Stone masonry wall, 200 feet long, 2 feet high. Spillway provided.

Topography—Gradually rising ground on three sides reaching maximum height of 50 feet; practically all under cultivation. Near lake are one ice house, one summer cottage and large hotel.

Inlet—North Branch Calkins Creek, 10 feet wide, 1 foot deep.

Outlet—North Branch Calkins Creek, 12 feet wide, 1 foot deep.

Utilization—Ice harvesting and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Private control.

LAURELDALE LAKE (See PROMISE LAND POND)

LEACH LAKE (See WHITE LAKE)

LEBOEUF, LAKE

Location—Southern Waterford Township, south central Erie County, on Leboeuf Creek, Upper Allegheny Sub-basin.

Type—Natural.

Drainage Area—Approximately 64.2 square miles.

Elevation—1167 (Bar.) referred to U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 2,715 feet; maximum width 2,400 feet.

Area—70.3 acres.

Capacity—1,000 acre-feet or 326,000,000 gallons.

Depth—Prevailing 16 feet; maximum 29 feet.

Dam—None.

Topography—Surrounded by marshy ground rising gradually to maximum height of 15 feet. Small island in center of lake. Approximately 75% of surrounding country covered with second growth timber, 25% cultivated. Two sheds or boat houses on shore 1 foot above water surface.

Inlets—Leboeuf Creek, 25 feet wide, 4 feet deep, flowing through clean channel; also Trout Creek, 10 feet wide, 2 feet deep.

Outlet—Leboeuf Creek, 25 feet wide, 4 feet deep, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low surrounding country.

Ownership—Commonwealth of Pennsylvania. Private control of land to shore line.

LEHMAN LAKE

Location—Northern Lehman Township, south central Pike County, on Little Bushkill Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 18.5 square miles.

Elevation—1183 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, irregular; maximum length 2,640 feet; maximum width 470 feet.

Area—20.0 acres.

Capacity—105 acre-feet or 34,000,000 gallons.

Depth—Prevailing 6 feet; maximum 9 feet.

Dam—Timber-crib, 200 feet long, 9 feet high, filled with earth and stone. Spillway provided for regulation of height of water.

Topography—Steeply rising ground on two sides reaching maximum height of 75 feet. Surrounding country covered with second growth timber. Ice house at water edge and club house on shore 20 feet above water surface.

Inlet—Little Bushkill Creek, 30 to 40 feet wide, 1 to 3 feet deep, flowing through rocky channel full of debris.

Outlet—Little Bushkill Creek, 30 to 40 feet wide, 1 to 3 feet deep, flowing through rocky channel full of debris.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Lehman Lake Hunting & Fishing Club, not limited to shore line.

LEIGH, LAKE

Location—Northwestern Fairmount Township, northern Luzerne County, on Glenleigh Creek, Lower North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 2.1 square miles.

Elevation—2220 (Bar.) referred to L. V. R. R. levels.

Shape—Oval, very irregular; maximum length 4,550 feet; maximum width 2,640 feet.

Area—137.0 acres.

Depth—At maximum water height prevailing depth 12 feet; maximum 32 feet.

Dam—Reinforced concrete, Ambursen type, 320 feet long, 29 feet high, with earthen embankment at each end; one embankment contains concrete core wall. Spillway and three blow-off pipes provided.

Topography—Surrounded by generally high ground rising gradually to maximum height of 80 feet; practically entire watershed covered with second growth timber.

Inlet—Glenleigh Creek, 5 feet wide, 1 foot deep, flowing slowly through clean channel.

Outlet—Glenleigh Creek, 6 feet wide, 1 foot deep, flowing through clean rocky channel.

Utilization—Boating and fishing, (private).

Navigation—Rowboats.

Opportunity for Storage—None, low ground at outlet.

Ownership—Col. R. B. Ricketts, Forty Fort, claims control.

LEWIS LAKE (See EAGLESMERE LAKE)

LEWIS LAKE

Location—Southern Herrick Township, southeastern Susquehanna County, on Fiddle Lake Creek, Lower North Branch Susquehanna Sub-basin.

Type—Originally natural; dam caused considerable increase in area submergence.

Drainage Area—Approximately 6.4 square miles.

Elevation—1690 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 3,200 feet; maximum width 1,400 feet.

Area—49.9 acres.

Capacity—737 acre-feet or 240,000,000 gallons.

Depth—Prevailing 20 feet; maximum 39 feet.

Dam—Stone wall, 200 feet long, 12 feet high, backed with earth and stone fill. Spillway and timber sluiceway provided.

Topography—Surrounding country rises gradually reaching maximum height of 100 feet; about 30% densely wooded with second growth timber, 70% cultivated. Ten summer cottages and three farm dwellings near lake, 3 to 15 feet above water surface.

Inlet—Fiddle Lake Creek, 20 to 30 feet wide, 3 feet deep, flows through swamp for some distance, channel free of debris.

Outlet—Fiddle Lake Creek, 10 feet wide, 6 inches deep, flows through rocky channel with some debris.

Utilization—Summer resort. Regulating pool for grist and planing mills; water supply for Erie R. R. water tanks; private ice supply; available storage for Scranton Gas & Water Co.

Navigation—Rowboats.

Opportunity for Storage—Could be increased; steep banks at outlet.

Ownership—Private control claimed. Grist mill, planing mill and Erie R. R. have water rights.

LEWIS ICE POND

Location—Central Allegany Township, north central Potter County, at Seven Bridges, Upper Allegheny Sub-basin.

Area—Approximately 5 acres.

LILLY LAKE (See MUD LAKE)

LILY LAKE (See NORTH POND)

LILY LAKE

Location—Southwestern North Abington Township, northwestern Lackawanna County, on tributary of South Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.6 square mile.

Elevation—1190 (Bar.) referred to U. S. G. S. datum.

Shape—Long and narrow; maximum length 2,880 feet; maximum width 680 feet.

Area—31.3 acres.

Capacity—319 acre-feet or 104,000,000 gallons.

Depth—Prevailing 18 feet; maximum 35 feet.

Dam—None.

Topography—Surrounded by high ground rising gradually to maximum height of 400 feet. Marshy ground borders lake. Practically entire watershed covered with second growth timber. Two cottages near shore, 6 feet above water surface.

Inlet—Fed by springs.

Outlet—Tributary to South Branch Tunkhannock Creek, 3 feet wide, 6 inches deep, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Ownership—Mortamon Fuller, Scranton, claims control.

LILY LAKE (See LONG POND)

LITTLE LAKE (See WILLIAM, LAKE)

LITTLE POND

Location—East central Wilmot Township, southeastern Bradford County, on small branch of Sugar Run Creek, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 6 acres.

LITTLE POND

Location—Southern Jefferson Township, east central Lackawanna County, on west branch of Wallenpaupack Creek, Upper Delaware Sub-basin.

Elevation—1995 (Bar.) referred to U. S. G. S. datum.

Area—13.5 acres.

LIZARD LAKE (See STARLIGHT LAKE)

LOBEZ POND (See BEAVER POND)

LOCH EDEN LAKE; old name HUNT LAKE

Location—Southern New Milford Township, central Susquehanna County, on Nine Partners Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Elevation—1483 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—18.3 acres.

LOCKLIN LAKE (See PURDYS POND)

LOCKWOOD POOL POND

Location—Northeastern Denison Township, southeastern Luzerne County, on Wright Creek, Middle Delaware Sub-basin.

Type—Artificial.

Elevation—1455 (Bar.) referred to C. R. R. of N. J. levels.

Area—9.5 acres.

LOG TAVERN POND, BIG

Location—Central Dingman Township, east central Pike County, on branch of Dwarfs Kill, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.5 square miles.

Elevation—1317, referred to U. S. G. S. datum.

Shape—Long and narrow, rectangular, maximum length 5,115 feet; maximum width 1,745 feet.

Area—123.6 acres.

Capacity—700 acre-feet; 228,000,000 gallons.

Depth—Prevailing 14 feet; maximum 14 feet.

Dam—None.

Topography—Surrounding country rises gradually in places reaching maximum height of 180 feet. Entire surrounding country densely wooded with second growth timber. Two dwellings and several outbuildings near pond, 2 to 30 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Dwarfs Kill, 8 feet wide, 1 to 2 feet deep, flowing through flat and marshy ground.

Utilization—Private ice supply and summer home.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—J. G. Hilliard, Brooklyn, N. Y., owns pond and surrounding country.

LOG TAVERN POND, LITTLE

Location—Central Dingman Township, east central Pike County, on branch of Raymond Kill, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.8 square mile.

Elevation—1300, referred to U. S. G. S. datum.

Shape—Oval, irregular; maximum length 2,950 feet; maximum width 2,290 feet.

Area—88.3 acres.

Capacity—2,286 acre-feet or 745,000,000 gallons.

Depth—Prevailing 45 feet; maximum 65 feet.

Dam—None.

Topography—Ground rises gradually from water edge to maximum height of 200 feet. Practically entire watershed densely covered with second growth timber.

Inlet—Fed by springs.

Outlet—Branch of Raymond Kill, 6 to 8 feet wide, 2 to 3 feet deep, flowing through rocky channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; topographically.

Ownership—Mrs. Hildebrand, Philadelphia, claims control.

LONG POND

Location—Central Tunkhannock Township, west central Monroe County, on Tunkhannock Creek, Middle Delaware Sub-basin.

Type—Natural; backwater from creek.

Drainage Area—Approximately 11 square miles.

Elevation—1832 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very long and narrow, irregular; maximum length 13,300 feet; maximum width 720 feet.

Area—59.2 acres.

Capacity—177 acre-feet or 58,000,000 gallons.

Depth—Prevailing 4 feet; maximum 6 feet.

Dam—None.

Topography—Lake in valley between two ranges of mountains. Ground flat on each side for some distance, rising gradually to maximum height of 50 feet. On south side, one point rises steeply to height of approximately 150 feet. Shores very marshy for considerable distance with pond filled with grass. Approximately 70% of the surrounding country covered with second growth timber and brush, 30% under cultivation. Near shore are 14 farm buildings with outbuildings, 20 to 40 feet above water surface.

Inlet—Tunkhannock Creek, 20 feet wide, 3 feet deep, flowing through marshy ground, muddy channel full of grass. Also fed by springs.

Outlet—Tunkhannock Creek, 30 feet wide, 3 feet deep, flowing through muddy channel full of grass.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Could be considerably increased. It is claimed actual survey showed that dam 32 feet high would raise water over ridge above inlet.

Ownership—Pocono Water Supply Co., claims control.

LONG POND (See WESTBROOKS LAKE)

LONG POND; also known as LILY LAKE

Location—East central Conyngham Township, also partly in northwestern Slocum Township, west central Luzerne County, on branch of Little Wapwallopen Creek, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 2.2 square miles.

Elevation—990 (Bar.) referred to U. S. G. S. datum.

Shape—Triangular, irregular, maximum length 4,985 feet; maximum width 2,170 feet.

Area—108.1 acres.

Capacity—1,263 acre-feet; 411,000,000 gallons.

Depth—Prevailing 21 feet; maximum 32 feet.

Dam—Vertical dry stone wall, 50 feet long, 10 feet high, backed with earth and stone fill. Timber sluiceway provided.

Topography—Surrounding country generally low. Ground on north rises rapidly to maximum height of 500 feet; east side marshy. Public road parallels one side, 5 feet above water surface. Practically entire watershed covered with second growth timber. Six cottages, one hotel and one ice house near pond, 6 to 30 feet above water surface.

Inlet—Branch of Little Wapwallopen Creek, 3 feet wide, 6 inches deep, flowing through swampy ground; channel strewn with debris.

Outlet—Branch of Little Wapwallopen Creek, 4 feet wide, 1 foot deep, flowing swiftly through rocky channel, full of debris.

Utilization—Private ice supply and summer resort.

Opportunity for Storage—Good; high banks at outlet.

Navigation—Rowboats.

Ownership—Private parties claim control.

LONG POND

Location—Southeastern Preston Township, north central Wayne County, on branch of Equinunk Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1495 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Oval, rather irregular; maximum length 2,715 feet, maximum width 1,100 feet.

Area—41.7 acres.

Capacity—1,045 acre-feet or 341,000,000 gallons.

Depth—Prevailing 46 feet; maximum 53 feet.

Dam—None.

Topography—Low ground on all sides rising gradually from water edge. Entire surrounding country under cultivation.

Inlet—Fed by springs.

Outlet—Branch of Equinunk Creek, 8 feet wide, flowing through rocky channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; ground low at outlet.

Ownership—Private parties claim control.

LONG POND; also called CHESTNUT LAKE

Location—North Berlin Township, east central Wayne County, at headwaters of Mast Hope Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.8 square mile.

Elevation—1750 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, irregular; maximum length 2,510 feet; maximum width 815 feet.

Area—24.9 acres.

Capacity—160 acre-feet or 52,000,000 gallons.

Depth—Prevailing 14 feet; maximum 18 feet.

Dam—None.

Topography—Low ground on three sides rising gradually to maximum height of 30 feet. Slightly marshy at outlet. Entire surrounding country covered with second growth timber.

Inlet—Fed by springs.

Outlet—Mast Hope Creek, 4 feet wide, 1 foot deep, flowing sluggishly through marshy ground.

Utilization—Private ice supply, boating and fishing.

Opportunity for Storage—None; surrounding country low.

Ownership—Private parties claim control.

LONG POND (See CRAMER POND)

LONG POND (See IDLEWILD, LAKE)

LONG POND

Location—Lake and Paupack townships, south central Wayne County, on Lakeville Creek, Upper Delaware Sub-basin.

Type—Originally natural; small additional area flooded.

Drainage Area—Approximately 0.7 square mile.

Elevation—1395 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, narrow, irregular; maximum length 5,890 feet; maximum width 960 feet.

Area—75.8 acres.

Capacity—544 acre-feet or 177,000,000 gallons.

Depth—Prevailing 11 feet; maximum 30 feet.

Dam—Dry stone wall, 200 feet long, 5 feet high, with earth fill. Spillway provided.

Topography—Surrounding country generally high, rising rapidly to maximum height of 80 feet; covered with second growth timber.

One end of lake exceedingly marshy. One dwelling and three barns on shore near outlet.

Inlet—Fed by springs.

Outlet—Lakeville Creek, 20 feet wide, 2 feet deep, flowing through rocky channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically.

Ownership—A. C. James, Lakeville, claims control.

LONG RIDGE POND

Location—Northeastern Palmyra Township, southeastern Wayne County, on Swamp Creek, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1300 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—17 acres.

LOOMIS LAKE

Location—Northwestern Lenox Township, south central Susquehanna County, on branch of Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.7 square mile.

Elevation—1303 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Elliptical, irregular; maximum length 1,980 feet; maximum width 1,160 feet.

Area—37.5 acres.

Capacity—631 acre-feet, 206,000,000 gallons.

Depth—Prevailing 25 feet; maximum 33 feet.

Dam—None.

Topography—Hills on three sides rising gradually to approximately 125 feet in height; 15% of surrounding country covered with second growth timber, 85% cultivated. Public road on two sides of lake for approximately three-quarters of a mile, 6 to 8 feet above water surface. On shore are eight or nine summer cottages, 6 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Tunkhannock Creek, about 10 feet wide and 6 inches deep, flowing through muddy channel full of debris.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically.

Ownership—Private parties, not limited to shore line.

LOPEZ POND

Location—Southeastern Laporte Township, southeastern Sullivan County, headwaters of Lopez Creek, Lower West Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 10 acres.

LORD POND

Location—Northwestern Lathrop Township, southern Susquehanna County, on branch of Horton Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.5 square miles.

Elevation—1139 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Elliptical, irregular; maximum length 2,275 feet; maximum width 900 feet.

Area—32.0 acres.

Capacity—378 acre-feet or 123,000,000 gallons.

Depth—Prevailing 16 feet; maximum 21 feet.

Dam—None.

Topography—Steep hills on three sides; ground rising from 100 to 150 feet in height. Approximately 50% of surrounding country thickly covered with second growth and virgin timber, 50% cultivated. One cottage near lake, 15 feet above water surface.

Inlet—Small stream, probably dry during summer months, about 2 feet wide and 1 foot deep, flowing through marshy ground. Fed by springs.

Outlet—Small branch Horton Creek, about 6 feet wide and 1 foot deep, flowing through gravelly channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically.

Ownership—Private parties, not limited to shore line.

LOVELLS POND

Location—East central Oregon Township, east central Wayne County, at headwaters of branch of Carley Brook, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1110 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—16.5 acres.

LOW LAKE

Location—Central Herrick Township, southeastern Susquehanna County, on tributary of Fiddle Lake Creek, Lower North Branch Susquehanna Sub-basin.

Type—Originally natural; dam flooded additional area.

Drainage Area—Approximately 0.4 square mile.

Elevation—1870 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, regular; maximum length 2,810 feet; maximum width 1,000 feet.

Area—51.2 acres.

Capacity—603 acre-feet or 197,000,000 gallons.

Depth—Prevailing 17 feet; maximum 21 feet.

Dam—Earth and stone embankment, 200 feet long, 5 feet high. Plank sluiceway provided for regulation of height of water.

Topography—Gradually rising hills on three sides reaching maximum height of 60 feet. Very marshy on one side. Approximately 25% of surrounding country thinly covered with second growth timber, 75% under cultivation. Two farm dwellings and outbuildings near lake, 20 to 30 feet above water surface.

Inlet—Small stream, 8 feet wide, 4 inches deep, flows through marshy ground with channel free of debris.

Outlet—Tributary of Fiddle Lake Creek, 4 feet wide, 6 inches deep, flowing through clean channel.

Utilization—Private ice supply, boating and fishing; used as regulating reservoir for grist mill.

Navigation—Rowboats.

Opportunity for Storage—None; low country around outlet.

Ownership—Consolidated Water Supply Co., Scranton, claims control of lake and ground for a distance above high water mark. Erie Railroad Co., claims strip of land next to water company; Uniondale Milling Co., also claims a water right.

LOWER DAM; also called FROST POND

Location—Southern Windham Township, northwestern Wyoming County, on Little Mehoopany Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—4.5 square miles.

Elevation—1005 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 1,980 feet; maximum width 1,525 feet.

Area—35.8 acres.

Capacity—168 acre-feet or 55,000,000 gallons.

Depth—Prevailing 8 feet; maximum 11 feet.

Dam—Vertical dry stone wall, 100 feet long, 12 feet high, backed with earth and stone fill. Spillway provided.

Topography—Generally high ground on all sides rising gradually to maximum height of 160 feet; about 25% covered with second growth timber, 75% cultivated.

Inlet—Little Mehoopany Creek, 15 feet wide, 2 feet deep, flowing slowly through clean rocky channel.

Outlet—Little Mehoopany Creek, 20 feet wide, 2 feet deep, flowing swiftly through clean, rocky channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Private control claimed.

LOWER LAKE

Location—Northwestern Harford Township, central Susquehanna County, on Martin Creek, Upper North Branch Susquehanna Subbasin.

Type—Natural.

Drainage Area—Approximately 3.3 square miles.

Elevation—1287 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular, maximum length 1,800 feet, maximum width 1,260 feet.

Area—35.3 acres.

Capacity—392 acre-feet or 128,000,000 gallons.

Depth—Prevailing 14 feet; maximum 27 feet.

Dam—Vertical dry stone wall about 100 feet long, 7 feet high, backed with earth and stone fill. Plank spillway controls head of 5 feet.

Topography—Lake lies between two ranges of hills rising steeply in places to maximum height of 70 feet. Public road along one side for 600 feet, about 8 feet above water surface. Approximately 30% of surrounding country covered with second growth timber, 70% cultivated. Around margin are four summer cottages and four farm dwellings and outbuildings, from 5 to 40 feet above water surface.

Inlet—Martin Creek, flowing through slightly swampy ground, in clean channel, 10 feet wide, 1 foot deep. Also fed by springs.

Outlet—Martin Creek, about 12 feet wide and 1 foot deep, flowing through rocky channel full of debris.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low country around outlet.

Ownership—Private control, not limited to shore line.

LOWER LAKE (See MUD PONDS)

LYNCHWOOD LAKE

Location—Southeastern Coolbaugh Township, north central Monroe County, on Upper Tunkhannock Creek, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 7.0 square miles.

Elevation—1882 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Irregular, triangular; maximum length 2,020 feet; maximum width 1,570 feet.

Area—43.8 acres.

Capacity—287 acre-feet or 93,000,000 gallons.

Depth—Prevailing 12 feet; maximum 19 feet.

Dam—Timber-crib, 800 feet long, 20 feet high, with earth and stone fill. Timber-crib spillway filled with stone; wooden sluiceway provided.

Topography—Surrounding country very low and flat. Ground rises gradually to maximum height of 15 to 20 feet, 85% densely wooded with second growth timber, 15% under cultivation. One ice house, one dwelling and offices near lake below dam.

Inlet—Upper Tunkhannock Creek, approximately 6 feet wide and one foot deep, flowing through swampy ground. Also fed by springs.

Outlet—Upper Tunkhannock Creek, approximately 12 feet wide, 1.5 feet deep, flowing through clean rocky channel.

Utilization—Ice harvesting.

Navigation—Rowboats.

Opportunity for Storage—None; surrounding country low.

Ownership—Lynch Bros., Tobyhanna, claim lake and surrounding country.

MANATAKA, LAKE (See WALLING POND)

MAPLE LAKE

Location—South Abington Township, Lackawanna County, on Summit Lake Creek, Lower North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—2.1 square miles.

Elevation—1248, referred to U. S. G. S. datum.

Area—2.4 acres.

Capacity—4,000,000 gallons.

Utilization—Storage for water supply, City of Scranton.

Ownership—Scranton Gas & Water Co., Scranton.

MAPLE LAKE

Location—Northeastern Spring Brook Township, southwestern Lackawanna County, headwaters of branch of Rattlesnake Creek, Lower North Branch Susquehanna Sub-basin.

Type—Originally natural; dam caused considerably greater submergence.

Drainage Area—Approximately 1.1 square miles.

Elevation—1650, referred to U. S. G. S. datum.

Area—35.0 acres.

Capacity—921 acre-feet or 300,000,000 gallons.

Dam—Earthen embankment, 21 feet high.

Topography—Surrounding country rises gradually from water edge, reaching maximum height of about 275 feet, almost all cultivated; only one small tract of timber near the shore.

Inlet—Fed by springs.

Outlet—Branch of Rattlesnake Creek.

Utilization—Water supply for Wilkes-Barre and vicinity.

Navigation—None.

Ownership—Spring Brook Water Supply Co., Wilkes-Barre.

MARSH POND; also called PEET POND

Location—North central Salem Township, south central Wayne County, on branch of Ariel Creek, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1445 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—14.7 acres.

MASKANOZA LAKE

Location—Northern Lehman Township, south central Pike County, on Little Bushkill Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 16.8 square miles.

Elevation—1198 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 4,835 feet; maximum width 2,650 feet.

Area—146.5 acres.

Capacity—377 acre-feet or 123,000,000 gallons.

Depth—Prevailing 4 feet; maximum 7 feet.

Dam—Timber-crib, 440 feet long, 13 feet high, with earth and stone fill. Spillway provided for regulating height of water.

Topography—Surrounding country rises gradually to maximum height of 30 feet; 30% of lake area swampy with stumps and dead trees standing. Of surrounding country, 90% covered with second growth timber, 10% under cultivation. Ice house and boat house at water edge. Two dwellings and barn 20 feet above water surface.

Inlet—Little Bushkill Creek, 30 to 35 feet wide, 1 to 3 feet deep, good fall.

Outlet—Little Bushkill Creek, 30 to 40 feet wide, 1 to 3 feet deep, flowing through rocky channel, full of debris.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Maskanoza Hunting & Fishing Club claims control of lake and right of entry thereto.

MEADOW LAKE

Location—Southwestern Apolacon Township, northwestern Susquehanna County, also southeastern Warren Township, northeastern Bradford County, on Wappasening Creek, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural; dam flooded additional area.

Drainage Area—Approximately 1.0 square mile.

Area—Approximately 90.0 acres.

Dam—Dry stone walls with earth filling, 85 feet long, 17 feet high. Spillway and outlet pipe provided.

Inlet—Wappasening Creek.

Outlet—Wappasening Creek.

Utilization—Pleasure purposes.

Ownership—F. N. Moore, Nichols, N. Y.

MEEKERS POND (See MOSES POND)

MEHOOPANY, LAKE (See GRANT LAKE)

MIDDLE LAKE

Location—Northwestern Harford Township, central Susquehanna County, on Martin Creek, Upper North Branch Susquehanna Subbasin.

Type—Artificial.

Drainage Area—Approximately 1.7 square miles.

Elevation—1376 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, regular; maximum length 2,205 feet; maximum width 1,155 feet.

***Area*—41.9 acres.**

Capacity—458 acre-feet or 149,000,000 gallons.

Depth—Prevailing 16 feet; maximum 22 feet.

Dam—Earth and stone embankment, approximately 25 feet long, 7 feet high, with a public road on crest. Stone spillway under highway bridge.

Topography—Lake lies between two ranges of hills rising steeply to maximum height of 60 feet. About 80% of country cultivated, 20% covered with second growth timber. Near lake, one summer cottage 10 feet above water surface.

Inlet—Martin Creek, small stream about 10 feet wide, 2 feet deep, flowing through marshy ground, with muddy channel free of debris.

Outlet—Martin Creek, emptying into Lower Lake, approximately one-half mile below. Creek about 10 feet wide, 1 foot deep, flowing through clean, gravelly and rocky channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically.

Ownership—Private control, not limited to shore line.

MIKES LOWER POND

Location—Northwestern Wright Township, central Luzerne County, on Little Wapwallopen Creek, Lower North Branch Susquehanna Sub-basin.

Area—Approximately 14 acres.

MIKES UPPER POND

Location—Northwestern Wright Township, central Luzerne County, on Little Wapwallopen Creek, Lower North Branch Susquehanna Sub-basin.

Area—Approximately 8 acres.

MILL POND (See SILVER LAKE)

MILL POND

Location—South central Pike Township, east central Bradford County, on Wyalusing Creek, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 5 acres.

MILLERS LAKE (See NAOMI LAKE)

MILLERS POND

Location—Southeastern Mount Pleasant Township, west central Wayne County, on branch of Johnson Creek, Upper Delaware Subbasin.

Type—Artificial.

Drainage Area—Approximately 1.2 square miles.

Elevation—1510 (Bar.) referred to U. S. G. S. datum.

Shape—Triangular, regular; maximum length 2,915 feet; maximum width 1,400 feet.

Area—61.7 acres.

Capacity—636 acre-feet or 207,000,000 gallons.

Depth—Prevailing 17 feet; maximum 19 feet.

Dam—Vertical dry stone wall, 250 feet long, 25 feet high, backed with earth and stone. Timber sluiceway provided for regulation of height of water.

Topography—Surrounded by high ground rising gradually to maximum height of 230 feet. Public road parallels dam, 12 feet below crest. Approximately 75% of surrounding country covered with second growth timber, 25% under cultivation. Sawmill on shore.

Inlet—Branch of Johnson Creek, 3 feet wide, 4 inches deep, flowing through marshy ground.

Outlet—Branch of Johnson Creek, 5 feet wide, 1 foot deep, flowing through rocky channel.

Utilization—Private ice supply, boating, fishing and feeder for the D. & H. Canal.

Navigation—Rowboats.

Opportunity for Storage—Could be slightly increased, high banks at outlet.

Ownership—Several persons claim control.

MINEOLA, LAKE

Location—Southeastern Chestnuthill Township, southwestern Monroe County, on branch of McMichaels Creek, Upper Delaware Sub-basin.

Type—Natural.

Area—Approximately 18 acres.

MINGO LAKE

Location—Eastern Liberty Township, north central Susquehanna County, on branch of Snake Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Elevation—1428 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—13.7 acres.

MINKLERS POND

Location—Central Apolacon Township, northwestern Susquehanna County, on Apolacon Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—2.7 square miles.

Elevation—1226 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 2,650 feet; maximum width 1,070 feet.

Area—15.9 acres.

Capacity—135 acre-feet or 44,000,000 gallons.

Depth—Prevailing 5 feet; maximum 6 feet.

Dam—Two vertical dry stone walls, about 75 feet long, 10 feet high, with earth and stone fill. Earth and stone dike, approximately 200 feet long, extends along shore from one end of dam. Concrete spillway and outlet provided.

Topography—Steep hills on three sides with swamp around inlet. Ground rises steeply reaching maximum height of approximately 200 feet; 60% of surrounding country covered with second growth timber, 40% cultivated. Two farm dwellings and outbuildings near pond, about 20 feet above water surface.

Inlet—Apolacon Creek, about 10 feet wide, and 2 feet deep, practically dry in summer, flowing through marshy ground.

Outlet—Apolacon Creek, about 10 feet wide, 3 inches deep, flowing through clean gravelly channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet on north side.

Ownership—Private control.

MINKS POND

Location—Northern Lehman Township, south central Pike County, on Little Bushkill Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 12.7 square miles.

Elevation—1258 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 3,450 feet; maximum width 1,740 feet.

Area—89.6 acres.

Capacity—365 acre-feet or 119,000,000 gallons.

Depth—Prevailing 6 feet; maximum 11 feet.

Dam—Timber-crib, 265 feet long, 10 feet high, filled with earth and stone. Spillway provided.

Topography—Surrounding country low and flat, maximum rise about 25 feet; covered with second growth timber. One dwelling and several sheds near pond 10 to 12 feet above water surface.

Inlet—Little Bushkill Creek, 20 to 25 feet wide, 1 to 2 feet deep, flowing through clean channel.

Outlet—Little Bushkill Creek, 30 to 35 feet wide, 1 to 3 feet deep, flowing through clean channel.

Utilization—Private ice supply, boating and fishing. Originally used for water power for sawmill.

Navigation—Rowboats.

Opportunity for Storage—Could be slightly increased; high banks at outlet.

Ownership—Wm. Mink claims pond, not limited to shore line.

MINNEWAWA, LAKE (See MUD POND)

MITCHELL POND

Location—South central South Canaan Township, southwestern Wayne county, on branch of Middle Creek, Upper Delaware Sub-basin.

Area—Approximately 3 acres.

MOKOMA, LAKE

Location—West central Laporte Township, central Sullivan County, on Mill Creek, Lower West Branch Susquehanna Sub-basin.

Type—Originally natural of smaller area.

Drainage Area—Approximately 2.4 square miles.

Elevation—1765, from local authority.

Shape—Very long, irregular; maximum length 4,810 feet; maximum width 1,190 feet.

Area—85.8 acres.

Capacity—848 acre-feet or 276,000,000 gallons.

Depth—Prevailing 18 feet; maximum 30 feet.

Dam—Vertical dry stone wall, 400 feet long, 12 feet high, with earth fill; public road on top. Timber spillway provided.

Topography—Surrounding country generally high, rising gradually in places, reaching maximum height of 200 feet. Railroad parallels one shore, 25 feet above water surface. Entire surrounding country covered with second growth timber. Two boat houses, one ice house and summer cottage near lake, 1 to 40 feet above water surface.

Inlets—Two streams, 5 to 6 feet wide, 1 to 2 feet deep, flowing through clean rocky channels. Branch of Mill Creek, 15 feet wide, 8 inches deep, flowing swiftly through clean rocky channel.

Outlet—Mill Creek, 15 feet wide, 1 to 2 feet deep, flowing swiftly through clean rocky channel.

Utilization—Private ice supply and summer resort.

Navigation—Motor boats and rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Lake Mokoma Land Co., Laporte, claims control.

MOODY POND or SPRING POND

Location—Asylum and Terry townships, southeastern Bradford County, on branch of Burell Creek, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 15 acres.

MOOSIC LAKE

Location—West central Jefferson Township, east central Lackawanna County, on West Branch Wallenpaupack Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.9 square mile.

Elevation—1950 (Bar.) from U. S. G. S. datum.

Shape—Triangular, very irregular; maximum length 3,900 feet; maximum width 1,830 feet.

Area—86.1 acres.

Capacity—1,539 acre-feet or 501,000,000 gallons.

Depth—Prevailing 32 feet; maximum 42 feet.

Dam—None.

Topography—Surrounding country rises gradually from water edge to maximum height of 80 feet, two sides being exceedingly low and flat. Electric railway parallels two sides, 20 to 50 feet above water surface. Entire surrounding country covered with second growth timber. Around margin of lake are six dwellings, and boat and ice houses, 1 to 20 feet above water surface.

Inlet—West Branch Wallenpaupack Creek, 5 feet wide, 1 to 2 feet deep, flowing through clean channel.

Outlet—West Branch Wallenpaupack Creek, 8 feet wide, 1 to 2 feet deep, flowing swiftly through clean rocky channel.

Utilization—Private ice supply, amusement park and summer resort.

Navigation—Motor boats and rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Burk Bros., Scranton, claim control.

MOSES POND; old names MEEKERS POND and MUD LAKE, LITTLE

Location—Northern Silver Lake Township, northwestern Susquehanna County, on branch of Little Snake Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Elevation—1728 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—12.3 acres.

MOSES WOOD POND

Location—Eastern Kidder Township, northeastern Carbon County, on headwaters of Black Creek, Middle Delaware Sub-basin.

Type—Natural.

Elevation—1650 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—12.3 acres.

MOSIES POND

Location—Southwestern Wilmot Township, southeastern Bradford County, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 10 acres.

MOUNTAIN LAKE

Location—Central Burlington Township, central Bradford County, on branch of Sugar Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.9 square miles.

Elevation—1380 (Bar.) referred to L. V. R. R. levels.

Shape—Oval, regular; maximum length 2,050 feet; maximum width 960 feet.

Area—34.0 acres.

Capacity—627 acre-feet or 204,000,000 gallons.

Depth—Prevailing 38 feet; maximum 52 feet.

Dam—None.

Topography—Surrounding country rises gradually to maximum height of 100 feet, approximately 50% covered with second growth timber, 50% cultivated. Near lake are numerous cottages and hotel, 15 to 30 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Sugar Creek, 4 feet wide, 1 foot deep, flowing through clean rocky channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Griffin Spencer, Towanda, claims control.

MOUNTAIN ICE CO. DAM NO. 1

Location—Central Coolbaugh Township, north central Monroe County, on Tobyhanna Creek, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—13.9 square miles.

Elevation—1913 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Irregular; triangular; maximum length 3,310 feet; maximum width 1,200 feet.

Area—55.9 acres.

Capacity—334 acre-feet or 109,000,000 gallons.

Depth—Prevailing 9 feet; maximum 12 feet.

Dam—Earth and stone embankment, 75 feet long, 14 feet high. Timber-crib spillway and outlet pipes are provided for regulation of height of water. Flashboards provided.

Topography—Lake lies between two ranges of hills, rising gradually to maximum height of 30 feet. D. L. & W. R. R. and public highway on two sides from 5 to 15 feet respectively above water surface. Of surrounding country 70% under cultivation, 30% covered with second growth timber and brush. Near lake are six dwellings, two barns and ice tramway, 1 to 60 feet above water surface. Lake is close to Borough of Tobyhanna.

Inlets—Two streams, East Branch and Tobyhanna Creek, both approximately 20 to 30 feet wide, 5 feet deep, flowing through swampy ground.

Outlet—Tobyhanna Creek, approximately 50 feet wide, 3 feet deep, flowing through clean rocky channel.

Utilization—Ice harvesting, summer resort. Hydraulic ram, immediately below dam, lifts water to water tank of D. L. & W. R. R.

Navigation—Rowboats.

Opportunity for Storage—No site available; D. L. & W. R. R. embankment along southern shore and public road along western side.

Ownership—The Mountain Ice Co. claims control.

MOUNTAIN ICE CO. DAM NO. 2

Location—Central Coolbaugh Township, north central Monroe County, on Tobyhanna Creek, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 3.6 square miles.

Elevation—1945 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 6,800 feet; maximum width 2,640 feet.

Area—162.1 acres.

Capacity—721 acre-feet or 235,000,000 gallons.

Depth—Prevailing 7 feet; maximum 10 feet.

Dam—Timber-crib, about 220 feet long, 21 feet high, with earth and stone fill, with branch track of D. L. & W. R. R. on crest. Timber-crib with stone fill spillway and timber sluiceway provided. An earth and stone dike, 330 feet long, extends along lake shore from one end of dam.

Topography—Ground rises gradually to maximum height of 100 feet. About 75% of surrounding country covered with second growth timber, 25% cultivated. Near lake are one large ice house, three dwellings and outbuildings, 5 to 20 feet above water surface.

Inlet—Tobyhanna Creek, 20 to 25 feet wide and 2 to 4 feet deep, flowing through clean rocky channel. Also fed by springs.

Outlet—Tobyhanna Creek, approximately 20 to 30 feet wide, 4 feet deep, flowing through rocky channel.

Utilization—Ice harvesting, fishing and boating. Originally used for driving logs.

Navigation—Rowboats.

Opportunity for Storage—None topographically; low country at inlet and outlet.

Ownership—The Mountain Ice Co. claims control.

MOUNTAIN SPRING LAKE

Location—Central Jackson Township, south central Monroe County, on Pensil Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.1 square miles.

Elevation—969 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Irregular; maximum length 3,370 feet; maximum width 1,440 feet.

Area—74.3 acres.

Capacity—435 acre-feet or 142,000,000 gallons.

Depth—Prevailing 8 feet; maximum 12 feet.

Dam—Earth and stone fill, approximately 800 feet long, 15 feet high. Stone masonry spillway and outlet pipe provided for regulating height of water. At opposite end of lake is an earth and stone dike 300 feet long, 12 feet high.

Topography—Low flat country on all sides reaching maximum height of 60 feet; swampy ground along one side. Side track of N. Y. S. & W. R. R. along one side, 4 feet above water surface. Approximately 20% of surrounding country covered with second growth timber, 80% cultivated. Two dwellings and ice house near lake, 4 to 10 feet above water surface.

Inlet—Pensil Creek, 10 feet wide, 1 foot deep, flowing through swampy ground with channel free of debris. Also fed by springs.

Outlet—Pensil Creek, 20 feet wide, 1 foot deep, flows through clean channel.

Utilization—Ice harvesting and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low country at outlet and upper end.

Ownership—Mountain Spring Ice Co. claims control.

MOUNTAIN SPRING WATER ICE CO'S. DAM NO. 1

Location—Northwestern Ross Township, northwestern Luzerne County, on North Branch of Bowman Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Area—Approximately 15 acres.

MOUNTAIN SPRING WATER ICE CO'S. DAM NO. 2, or BEAN POND

Location—Northwestern Ross Township, northwestern Luzerne County, on headwaters of North Branch of Bowman Creek, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 12 acres.

MUD LAKE; old name LILLY LAKE

Location—Northeastern Greenfield Township, north central Lackawanna County, on tributary of East Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.4 square mile.

Elevation—1645, referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, irregular; maximum length 1,950 feet; maximum width 740 feet.

Area—23.6 acres.

Capacity—143 acre-feet or 47,000,000 gallons.

Depth—Prevailing 8 feet; maximum 12 feet.

Dam—None.

Topography—Pond connected to Newton Lake by wide channel. Surrounding country generally steep rising to maximum height of 65 feet; approximately 70% covered with second growth timber, 30% under cultivation. Swampy ground almost surrounds lake with large cranberry bog on one side.

Inlet—Fed by springs.

Outlet—Through ravine into Newton Lake, 150 feet long, 200 feet wide. Very marshy with clean channel 40 to 50 feet wide, 1 to 2 feet deep.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None, topographically.

Ownership—Several private parties and Consolidated Water Supply Co., Scranton, claim control.

MUD LAKE

Location—Northeastern Fox Township, northwestern Sullivan County, on branch of Brown Run, Lower West Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 5 acres.

MUD LAKE (See LAUREL LAKE)

MUD LAKE, LITTLE (See MOSES POND)

MUD POND (See HEART LAKE)

MUD PONDS, THREE-DOLLAR, MUD and LOWER LAKE

Location—East and West Fallowfield townships, southwestern Crawford County, Main Ohio Sub-basin.

Type—Natural.

Elevation—1013, referred to State Highway Department levels from U. S. G. S. datum.

Areas Combined—Approximately 26 acres.

MUD POND

Location—Eastern Benton Township, northwestern Lackawanna County, on tributary of South Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 10 acres.

MUD POND

Location—Western Benton Township, northwestern Lackawanna County, headwaters of branch of Sheik Creek, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 5 acres.

MUD POND or DUCK POND

Location—Southeastern Preston Township, northwestern Wayne County, on Equinunk Creek, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1376 (Bar.) referred to U. S. G. S. datum.

Area—9.0 acres.

MUD POND

Location—Northwestern Plymouth Township, north central Luzerne County, on branch of Hunlock Creek, Lower North Branch Susquehanna Sub-basin.

Area—Approximately 15 acres.

MUD POND or MINNEWAWA, LAKE

Location—Eastern Slocum Township, central Luzerne County, on branch of Wapwallopen Creek, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 16 acres.

MUD POND

Location—Northern Denison Township, southeastern Luzerne County, on Nescopeck Creek, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 2 acres.

MUD POND

Location—Northeastern Bear Creek Township, east central Luzerne County, on headwaters of branch of Meadow Run, Middle Delaware Sub-basin.

Type—Natural.

Area—Approximately 11 acres.

MUD POND

Location—Northeastern Porter Township, south central Pike County, on headwaters of Little Bushkill Creek, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1260 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—18.6 acres.

MUD POND

Location—Eastern Porter Township, south central Pike County, on branch of Middle Bushkill Creek or Saw Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.5 square miles.

Elevation—1363 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, fairly regular; maximum length 1,850 feet; maximum width 1,155 feet.

Area—33.5 acres.

Capacity—349 acre-feet or 114,000,000 gallons.

Depth—Prevailing 15 feet; maximum 18 feet.

Dam—None.

Topography—Rising country on all sides covered with second growth timber, reaching maximum height of 50 feet.

Inlet—Fed by springs.

Outlet—Branch of Saw Creek, 5 feet wide, 1 foot deep, flowing through slightly marshy ground.

Utilization—Boating, fishing and camping resort.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically.

Ownership—Commonwealth of Pennsylvania, (State Forest Reserve).

MUD POND

Location—Northeastern Blooming Grove Township, central Pike County, on headwaters of branch of Shohola Creek, Upper Delaware Sub-basin.

Type—Natural.

Area—Approximately 10 acres.

MUD POND

Location—Northern Dingman Township, east central Pike County, on headwaters of Saw Kill, Upper Delaware Sub-basin.

Type—Natural.

Area—Approximately 10 acres.

MUD POND

Location—Southeastern Greene Township, west central Pike County, on headwaters of branch of Wells Creek, Upper Delaware Sub-basin.

Type—Natural.

Area—Approximately 5 acres.

MUD POND

Location—Northwestern Clifford Township, southeastern Susquehanna County, on tributary of East Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 18 acres.

MUD POND

Location—Eastern Ararat Township, east central Susquehanna County, on East Branch Lackawaxen River, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 10 acres.

MUD POND

Location—Central Manchester Township, northeastern Wayne County, on branch of Little Equinunk Creek, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1410 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—18.4 acres.

MUD POND

Location—East central Clinton Township, west central Wayne County, on tributary of West Branch Lackawaxen River, Upper Delaware Sub-basin.

Area—Approximately 18 acres.

MUD POND

Location—Southwestern Lemon Township, north central Wyoming County, on branch of Mill Brook, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.7 square miles.

Elevation—1105 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, regular; maximum length 4,075 feet; maximum width 1,380 feet.

Area—75.6 acres.

Capacity—764 acre-feet or 249,000,000 gallons.

Depth—Prevailing 17 feet; maximum 27 feet.

Dam—Earth and stone embankment, 75 feet long. Spillway provided controls a head of 7 feet.

Topography—Surrounded by high ground rising steeply and reaching maximum height of 200 feet. Public road parallels shore for short distance. Of surrounding country 50% covered with second growth timber, 50% cultivated. One boat house and one dwelling on shore.

Inlets—Small stream, 4 feet wide, 6 inches deep, flowing through marshy ground with debris strewn channel; also branch of Mill Brook, 5 feet wide, 1 foot deep, flowing through clean channel.

Outlet—Branch of Mill Brook, 8 feet wide, 1 foot deep, flowing through clean rocky channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Private control.

MUD POND, LITTLE

Location—South central Canaan Township, southwestern Wayne County, on small branch of Middle Creek, Upper Delaware Sub-basin.

Area—Approximately 10 acres.

MURPHYS POND

Location—North central Lebanon Township, north central Wayne County, Upper Delaware Sub-basin.

Area—Approximately 6 acres.

NAOMI LAKE, old name, MILLERS LAKE

Location—Central Tobyhanna Township, northwestern Monroe County, on Upper Tunkhannock Creek, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 29.0 square miles.

Elevation—1750, referred to State Highway Department levels, from U. S. G. S. datum.

Shape—Long, very irregular; maximum length 9,720 feet; maximum width 2,180 feet.

Area—251.1 acres.

Capacity—1,493 acre feet or 486,000,000 gallons.

Depth—Prevailing 7 feet; maximum 13 feet.

Dam—Timber-crib, 669 feet long, 18 feet high, with earth and stone fill. Spillway, timber sluiceway and outlet pipe provided for regulating height of water. Low earth and stone dike, approximately 1,500 feet long, extends along shore from one end of dam.

Topography—Lake lies between two ranges of hills. Country rises steeply and reaches maximum height of 125 feet. Slightly swampy and full of stumps at upper end. Island with area of 4 to 5 acres, and 3 to 5 feet high, in lake. Approximately 80% of surrounding country covered with second growth and virgin timber, 20% cultivated. On shore are 50 to 60 dwellings and four hotels from 3 to 30 feet above water surface.

Inlets—Upper Tunkhannock Creek, 40 feet wide, 2 feet deep, flowing through marshy ground with clean channel; also Mud Run, 10 feet wide, 2 feet deep, flowing through swampy ground, channel full of debris.

Outlet—Upper Tunkhannock Creek, 50 feet wide, 2 feet deep, flowing through clean rocky channel.

Utilization—Ice harvesting and summer resort.

Navigation—Motor boats and rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Pocono Pines Ice Co., claims control.

NEPHAWIN, LAKE

Location—Central Canton Township, southwestern Bradford County, on branch of Towanda Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.0 square mile.

Elevation—1580 (Bar.) referred to U. S. G. S. datum.

Shape—Oval, regular; maximum length 2,960 feet; maximum width 1,040 feet.

Area—36.5 acres.

Capacity—247 acre-feet or 80,000,000 gallons.

Depth—Prevailing 12 feet; maximum 18 feet.

Dam—None.

Topography—Hills on three sides rising gradually reaching maximum height of 200 feet. Public road parallels two sides of lake, 5 to 40 feet above water surface. About 75% of surrounding country covered with second growth timber, 25% under cultivation. Fourteen dwellings near lake, 10 to 50 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Towanda Creek, 8 feet wide, 1 foot deep, flowing with rapid fall through clean rocky channel.

Utilization—Private ice supply, water supply for Canton, and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good; high banks at outlet; but would cause damage to road and houses.

Ownership—Private parties claim control. The Citizens Water Co. of Canton, has water rights.

NEWTON LAKE

Location—Northeastern Greenfield Township, north central Lackawanna County, on tributary of East Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.1 square miles.

Elevation—1645, referred to U. S. G. S. datum.

Shape—Oval, very irregular; maximum length 4,425 feet; maximum width 1,500 feet.

Area—112.2 acres.

Capacity—2,333 acre-feet or 760,000,000 gallons.

Depth—Prevailing 26 feet; maximum 40 feet.

Dam—None.

Topography—Lake lies near top of ridge. Surrounding country rises steeply on three sides reaching maximum height on one side of 70 feet; about 30% thinly wooded with second growth timber, 70% cultivated. Public road crosses outlet, 1 to 10 feet above water surface. Near lake 3 boat houses and 15 dwellings, 1 to 30 feet above water surface.

Inlet—Outlet from Mud Lake, 200 feet wide and 150 feet long, very marshy with clear channel about 40 to 50 feet wide, 1 to 2 feet deep. Also fed by springs.

Outlet—Tributary of the East Branch Tunkhannock Creek, 1 foot wide, 8 or 9 inches deep, flowing through clean channel.

Utilization—Private ice supply and summer resort. Used formerly as regulating reservoir for sawmill on outlet.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Consolidated Water Supply Co., Scranton, claims control of lake and most of surrounding country.

NICHECRONK LAKE

Location—Northwestern Delaware Township, southeastern Pike County, on Nichecronk Brook, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.3 square mile.

Elevation—1264, referred to U. S. G. S. datum.

Shape—Oval, long and narrow; maximum length 2,870 feet; maximum width 635 feet.

Area—29.4 acres.

Capacity—353 acre-feet or 115,000,000 gallons.

Depth—Prevailing 17 feet; maximum 20 feet.

Dam—None.

Topography—Hills on three sides rising gradually from water edge to maximum height of 160 feet. About 98% of surrounding country covered with second growth timber, 2% cultivated. Two summer cottages near lake, 50 to 80 feet above water surface.

Inlet—Fed by springs.

Outlet—Nichecronk Brook, 6 feet wide, 1 foot deep, flowing with rapid fall through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None, topographically.

Ownership—Three persons claim control.

NIGGER POND

Location—Southern Windham Township, northwestern Wyoming County, on Little Mehoopany Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 2.3 square miles.

Elevation—1035 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, very irregular; maximum length 4,165 feet; maximum width 1,225 feet.

Area—65.4 acres.

Capacity—255 acre-feet or 83,000,000 gallons.

Depth—Prevailing 7 feet; maximum 11 feet.

Dam—Vertical dry stone wall, 150 feet long, 10 feet high, backed with earth fill.

Topography—Generally high ground on all sides, rising gradually to maximum height of 200 feet, about 25% covered with second growth timber, 75% cultivated. One side of lake exceedingly marshy.

Inlet—Little Mehoopany Creek, 6 feet wide, 1 foot deep, flowing through marshy ground.

Outlet—Little Mehoopany Creek, 20 feet wide, 2 feet deep, flowing slowly through clean channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; would necessitate long dam.

Ownership—Private parties claim control.

NILES POND

Location—Southern Lebanon Township, central Wayne County, on branch of Big Brook, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.4 square mile.

Elevation—1490 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Rectangular, rather irregular; maximum length 1,710 feet; maximum width 870 feet.

Area—23.6 acres.

Capacity—324 acre-feet or 105,000,000 gallons.

Depth—Prevailing 24 feet; maximum 36 feet.

Dam—None.

Topography—Surrounding country generally high, reaching maximum height of 100 feet; approximately 25% covered with second growth timber, and 75% under cultivation. One farm house near pond, 50 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Big Brook, 3 feet wide, 6 inches deep, flowing through clean channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically, but of little value due to small drainage area.

Ownership—Fred Robinson, Rileyville, claims control.

NORTH POND

Location—Southeastern Ross Township, northwestern Luzerne County, on branch of Hunlock Creek, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.2 square mile.

Elevation—1335 referred to U. S. G. S. datum.

Shape—Triangular, rather irregular; maximum length 1,700 feet; maximum width 1,220 feet.

Area—24.5 acres.

Capacity—253 acre-feet or 82,000,000 gallons.

Depth—Prevailing 8 feet; maximum 30 feet.

Dam—None.

Topography—Surrounding country generally flat. On north side ground rises to maximum height of 200 feet. Entire watershed covered with second growth timber. Four cottages near pond, 10 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Hunlock Creek, 5 feet wide, 6 inches deep, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Private parties claim control.

NORTH POND; also called LILY LAKE

Location—Northwestern Brooklyn and southeastern Bridgewater townships, central Susquehanna County, on branch of Hop Bottom Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Elevation—1453 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—Approximately 16.3 acres.

NORTH JERSEY LAKE

Location—Northwestern Coolbaugh Township, northwestern Monroe County; also western Lehigh Township, south central Wayne County, on branch of Lehigh River, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.4 square miles.

Elevation—1885, referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; long, rectangular; maximum length 7,310 feet; maximum width 2,150 feet.

Area—250.2 acres.

Capacity—1,089 acre-feet or 355,000,000 gallons.

Depth—Prevailing 5 feet; maximum 9 feet.

Dam—Concrete wall, 10 feet long, 7 feet high, built between wing walls of D. L. & W. R. R. culvert.

Topography—Surrounding country rises gradually, reaching maximum height of 150 feet; 50% cultivated, 50% sparsely wooded with second growth timber. The D. L. & W. R. R. tracks parallel one side, 6 feet above water surface. One large ice house, several dwellings and barns near shore, 4 to 10 feet above water surface.

Inlets—Branch of Lehigh River, approximately 15 feet wide, 3 feet deep, flowing through marshy ground; also fed by springs and several small streams which are dry in summer.

Outlet—Branch of Lehigh River, approximately 8 feet wide, 1.7 feet deep, flowing through clean rocky channel.

Utilization—Ice harvesting, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None, due to proximity of main line of D. L. & W. R. R.

Ownership—Mountain Ice Co. claims control.

NUANGOLA, LAKE (See TRIANGULAR POND)

OPEN WOODS POND

Location—Southeastern Berlin Township, east central Wayne County, on branch of Mast Hope Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.6 square mile.

Elevation—1180 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 2,190 feet; maximum width 1,375 feet.

Area—48.0 acres.

Capacity—520 acre-feet or 169,000,000 gallons.

Depth—Prevailing 24 feet; maximum 32 feet.

Dam—None.

Topography—Generally low ground on all sides, rising gradually to maximum height of 50 feet; 50% covered with second growth timber, 50% under cultivation. Inlet end slightly marshy. One dwelling near pond.

Inlet—Branch of Mast Hope Creek, 6 feet wide, 6 inches deep, flowing through marshy ground.

Outlet—Branch of Mast Hope Creek, 6 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—U. C. Measler, White Mills, claims control.

OREONOBA LAKE; old name ROBINSONS or HATHAWAYS POND

Location—Central Ararat Township, east central Susquehanna County, on branch of West Branch Lackawanna River, Lower North Branch Susquehanna Sub-basin.

Type—Originally natural; dam flooded additional area.

Drainage Area—Approximately 0.5 square mile.

Elevation—1981 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, irregular; maximum length 2,350 feet; maximum width 850 feet.

Area—31.2 acres.

Dam—Vertical dry stone wall, 30 feet long, 8 feet high, backed with earth and stone fill. Masonry spillway provided.

Topography—Fairly high ground on three sides rising to maximum height of 75 feet. Erie R. R. parallels one side, 6 feet above water surface. About 20% of surrounding country covered with second growth timber, 80% cultivated. Floating bog covers major portion of lake. Four cottages near lake, 5 to 10 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of West Branch Lackawanna River, 9 feet wide, 1 foot deep, flowing through muddy channel, free of debris.

Utilization—Summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low country at outlet and proximity of Erie R. R.

Ownership—Private control.

ORSON DAM

Location—Southwestern Preston Township, northwestern Wayne County, on branch of East Branch Lackawanna River, Lower North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 2.1 square miles.

Elevation—1960 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Irregular; maximum length 1,915 feet; maximum width 710 feet.

Area—21.9 acres.

Capacity—117 acre-feet or 38,000,000 gallons.

Depth—Prevailing 10 feet; maximum 12 feet.

Dam—Timber-crib 75 feet long, 16 feet high, with stone fill. Spillway provided.

Topography—Surrounding cultivated country low, rising gradually from water edge to maximum height of 20 feet. Railroad parallels one side. Ice house on shore near lake.

Inlet—Branch of Lackawanna River, 10 feet wide, flowing through swampy ground.

Outlet—Branch of Lackawanna River, 10 feet wide, flowing through clean channel.

Utilization—Ice harvesting, boating, fishing and water power for grist mill.

Opportunity for Storage—None; low surrounding country.

Ownership—D. P. Hine, Orson, claims control.

OSTERHOUT POND; also called FLOW POND

Location—Northwestern Overfield, and southeastern Tunkhannock townships, east central Wyoming County, on branch of Osterhout Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 2.0 square miles.

Elevation—835 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, rather irregular; maximum length 2,375 feet; maximum width 745 feet.

Area—30.4 acres.

Capacity—101 acre-feet or 33,000,000 gallons.

Depth—Prevailing 8 feet; maximum 12 feet.

Dam—Vertical dry stone wall, 150 feet long, 12 feet high, backed with earth and stone fill.

Topography—Surrounded by high ground rising rapidly to maximum height of 200 feet; 50% covered with second growth timber, 50% under cultivation. A small camp on shore near pond.

Inlet—Branch of Osterhout Creek, 6 feet wide, 1 foot deep, flowing through clean channel in marshy ground.

Outlet—Branch of Osterhout Creek, 10 feet wide, 1 foot deep, flowing swiftly through clean rocky channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—William Osterhout, Lake Winola, claims control.

OXBOW LAKE

Location—Southern Lemon Township, north central Wyoming County, on branch of Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 3.8 square miles.

Elevation—1075 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, irregular; maximum length 2,580 feet; maximum width 1,415 feet.

Area—60.4 acres.

Capacity—735 acre-feet or 239,000,000 gallons.

Depth—Prevailing 19 feet; maximum 32 feet.

Dam—Stone masonry, 50 feet long, 14 feet high. Sluiceway provided for regulation of height of water.

Topography—Surrounded by gradually rising ground, reaching maximum height of 100 feet, practically covered with second growth timber. One farm house near lake, 100 feet above water surface.

Inlet—Branch of Tunkhannock Creek, 10 feet wide, 1 foot deep flowing swiftly through clean channel.

Outlet—Branch of Tunkhannock Creek, 12 feet wide, 2 feet deep, flowing swiftly through clean rocky channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Private control.

PAGES POND

Location—Eastern New Milford Township, central Susquehanna County, on Saltlick Creek, Upper North Branch Susquehanna Subbasin.

Type—Artificial.

Drainage Area—Approximately 2.5 square miles.

Elevation—1506 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, irregular; maximum length 6,170 feet; maximum width 1,900 feet.

Area—96.1 acres.

Capacity—704 acre-feet or 223,000,000 gallons.

Depth—Prevailing 12 feet; maximum 25 feet.

Dam—Earth and stone embankment, 161 feet long, 13 feet high, faced with vertical dry stone wall. Wooden outlet flume provided, regulating height of water.

Topography—Pond lies between two ranges of hills rising gradually to maximum height of 150 feet. Public highway parallels one side for 800 feet, 8 to 10 feet above water surface. Approximately 85% of surrounding country under cultivation, 15% covered with second growth timber. Ten dwellings and six or eight sheds near pond, 6 to 20 feet above water surface.

Inlet—Saltlick Creek about 30 feet wide and 1 foot deep, flowing through swampy ground, in muddy channel. Lake also fed by springs.

Outlet—Saltlick Creek, about 30 feet wide, 6 inches deep, flowing through rocky channel full of debris.

Utilization—Has been used as regulating reservoir for Moon Pond for hydroelectric development, but now used only for ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low country at outlet and proximity of town of East New Milford.

Ownership—Recently purchased from the New Milford Electric Light & Power Co. by Susquehanna County Light & Power Co., not limited to shore line.

PAINTER DEN POND or PICKEREL POND

Location—Southeastern Laporte and northeastern Davidson townships, southeastern Sullivan County, on headwaters of Painter Den Creek, Lower West Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 12 acres.

PANTHER LAKE (See VIEW, LAKE)

PAUPACK, LAKE; old name EAST BRANCH POND

Location—Northern Greene Township, west central Pike County, on East Branch Wallenpaupack Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 8.6 square miles.

Elevation—1594 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 4,635 feet; maximum width 2,090 feet.

Area—107.3 acres.

Capacity—1,474 acre-feet or 480,000,000 gallons.

Depth—Prevailing 21 feet; maximum 27 feet.

Dam—None.

Topography—Surrounding country rises gradually from water edge; 98% covered with second growth timber, 2% cultivated. On south side ground rises steeply to maximum height of 200 feet. Large club house located near lake, approximately 200 feet above water surface.

Inlet—East Branch Wallenpaupack Creek, 20 feet wide, 1 to 3 feet deep, flowing through slightly marshy ground; also two small streams, 5 to 8 feet wide, 1 foot deep, flowing through marshy ground.

Outlet—East Branch Wallenpaupack Creek, 35 feet wide, 4 feet deep, flowing through marshy ground.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Could be increased.

Ownership—Laura Decher and J. Franklin Meehan, et al., claim control.

PAYNES LAKE

Location—Southwestern Gibson Township, southeastern Susquehanna County, on branch of Butler Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 5 acres.

PECKS POND

Location—Northern Porter, and southern Blooming Grove townships, south central Pike County, on Big Bushkill Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 8.0 square miles.

Elevation—1149, referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, very irregular; maximum length 8,670 feet; maximum width 4,370 feet.

Area—300.0 acres.

Capacity—810 acre-feet or 264,000,000 gallons.

Depth—Prevailing 4 feet; maximum 8 feet.

Dam—Vertical dry stone wall, 60 feet long, 12 feet high, backed with earth and stone fill.

Topography—Surrounding country generally high, rising gradually from water edge. Several islands, densely wooded with second growth timber, 10 to 20 feet above water surface. Lake filled with stumps and snags of trees left standing when country was flooded. Entire watershed, with exception of 10 to 15 acres cultivated, forested with second growth timber and brush. Near pond small ice house and one dwelling with outbuildings, 2 to 15 feet above water surface.

Inlet—Tarkill Run, 6 feet wide, 1 foot deep; and East Branch Creek, 5 to 7 feet wide, 1 to 2 feet deep; also small stream, 7 to 8 feet wide, 1 to 3 feet deep. All of these streams are of same character and flow through marshy ground. Lake also fed by springs.

Outlet—Big Bushkill Creek, 16 to 18 feet wide, 1 to 3 feet deep, flowing through rocky channel strewn with debris.

Utilization—Private ice supply, boating and fishing. Originally built for lumber operation.

Navigation—Rowboats.

Opportunity for Storage—None, on account of damage to property.

Ownership—Commonwealth of Pennsylvania owns all surrounding land, except few acres owned by individual having right of entry to pond.

PEET POND (See MARSH POND)

PENN, LAKE

Location—Northeastern Denison Township, southeastern Luzerne County, on Wright Creek, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 5.6 square miles.

Nigger Pond, Wyoming County
(See page 132)

Rillie Lake, Susquehanna County
(See page 152)

Elevation—1322 (Bar.) referred to C. R. R. of N. J. levels.

Shape—Long and irregular; maximum length 3,150 feet; maximum width 1,350 feet.

Area—51.2 acres.

Capacity—577 acre-feet or 188,000,000 gallons.

Depth—Prevailing 20 feet; maximum 27 feet.

Dam—Earth and stone embankment, 600 feet long, controlling a head of approximately 40 feet. Spillway and outlet pipe provided for regulation of height of water.

Topography—Surrounded generally by low ground rising on north to maximum height of 200 feet; all covered with second growth timber and brush. Ice house and several sheds located along creek below dam.

Inlet—Wright Creek, 20 feet wide, 3 to 4 inches deep, flowing through clean gravelly channel.

Outlet—Wright Creek, 20 feet wide, 3 to 4 inches deep, flowing through clean gravelly channel.

Utilization—Ice harvesting.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Albert Lewis, Bear Creek, through corporation known as Mountain Spring Water Ice Co.

PERCH POND (See SCOTT, LAKE)

PERCH POND

Location—Northeastern Preston Township, north central Wayne County, on branch of Chehocton Creek, Upper Delaware Sub-basin.

Type—Originally natural; dam caused considerable increase in submergence.

Drainage Area—Approximately 0.5 square mile.

Elevation—1500 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Very irregular; maximum length 3,410 feet; maximum width 770 feet.

Area—36.5 acres.

Capacity—716 acre-feet or 233,000,000 gallons.

Depth—Prevailing 38 feet; maximum, 47 feet.

Dam—Stone masonry and concrete, 200 feet long, 16 feet high. Two spillways with flash boards provided for regulation of height of water.

Topography—Surrounding country generally high, rising to maximum height of 35 feet; covered with second growth timber.

Inlet—Fed by springs.

Outlet—Branch of Chehocton Creek, 12 feet wide, flowing swiftly through rocky channel.

Utilization—Ice harvesting and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; extremely steep banks at outlet.

Ownership—Geo. Holbert, Starlight, claims control.

PERRINS MARSH (See BROWNS POND)

PICKEREL POND

Location—Northern Porter Township, south central Pike County, on Big Bushkill Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 22.5 square miles.

Elevation—1309, referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 4,600 feet; maximum width 2,460 feet.

Area—108.5 acres.

Capacity—485 acre-feet or 158,000,000 gallons.

Depth—Prevailing 7 feet; maximum 13 feet.

Dam—Timber-crib, 140 feet long, 9 feet high, with earth and stone fill. Timber-crib spillway provided.

Topography—Surrounding country rises gradually to maximum height of 20 feet. Numerous stumps and snags show above water surface. Area flooded, originally was swamp. Practically entire surrounding country covered with second growth timber. Two boat houses at water edge.

Inlet—Main branch of Big Bushkill Creek, 15 to 18 feet wide, 1 foot deep; also Rocky Hill Creek, 35 feet wide, 1 to 2 feet deep, rocky channel full of debris; also outlet from Porters Lake, 8 to 10 feet wide, 1 to 2 feet deep, flowing through marshy ground.

Outlet—Big Bushkill Creek, 30 feet wide, 1 to 2 feet deep, flowing with good fall through rocky channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good, steep banks at outlet.

Ownership—Porters Lake Hunting and Fishing Club claims control.

PICKEREL POND (See PAINTER DEN POND)

PICKERING POND

Location—Gibson Township, east central Susquehanna County, on branch of Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Area—Approximately 12 acres.

PLATTENBURGS POND

Location—Northern Stroud Township, east central Monroe County, on small branch of Brodheads Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.0 square mile.

Elevation—638 (Bar.) referred to the State Highway Department levels from U. S. G. S. datum.

Shape—Regular, triangular; maximum length 2,170 feet; maximum width 975 feet.

Area—30.5 acres.

Capacity—68 acre-feet or 22,000,000 gallons.

Depth—Prevailing 3 feet; maximum 4 feet.

Dam—Earth and stone embankment, 450 feet long, 3 feet high. Downstream side faced with concrete wall.

Topography—Surrounded by steep hills, rising to maximum height of 100 feet; approximately 75% under cultivation, 25% forested with second growth timber. Near pond, one farm dwelling, 8 feet above water surface, while a barn approximately 6 to 8 feet below is protected by small dike.

Inlet—Small stream, 3 feet wide, 1 foot deep flowing through swampy ground. Also fed by springs.

Outlet—Small stream, 4 feet wide, 1 foot deep flowing with considerable fall through rocky channel into Brodheads Creek.

Utilization—Private ice supply and fish pond.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Mr. Plattenburg; not limited to shore line.

PLEASANT, LAKE

Location—Southwestern Venango Township, east central Erie County, on branch of Alder Run, Upper Allegheny Sub-basin.

Type—Natural.

Drainage Area—Approximately 2.7 square miles.

Elevation—1297 (Bar.) referred to U. S. G. S. datum.

Shape—Oval, rather irregular; maximum length 2,640 feet; maximum width 1,250 feet.

Area—59.7 acres.

Capacity—1,071 acre-feet or 349,000,000 gallons.

Depth—Prevailing 24 feet; maximum 39 feet.

Dam—None.

Topography—Surrounded by generally low ground, rising gradually to maximum height of 60 feet. Public road parallels one shore. Two sides of lake exceedingly swampy. Approximately 40% of surrounding country sparsely wooded with second growth timber and brush, 60% cultivated. Near shore one hotel and dance hall, 60 feet above water surface.

Inlet—Three small streams, 2 to 8 feet wide, 2 feet deep, flowing through marshy ground. Also fed by springs.

Outlet—Branch of Alder Run, 8 feet wide, 5 feet deep, flowing slowly through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Commonwealth of Pennsylvania claims control.

POCOHONTAS LAKE

Location—Northern Stroud Township, east central Monroe County, at headwaters of small branch of Brodheads Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 0.6 square mile.

Elevation—658 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow; maximum length 2,500 feet; maximum width 770 feet.

Area—32.9 acres.

Capacity—180 acre-feet or 59,000,000 gallons.

Depth—Prevailing 8 feet; maximum 10 feet.

Dam—Vertical dry stone wall, 375 feet long, 12 feet high, backed with earth and stone fill. Spillway near center.

Topography—Steep hills on three sides, rising to maximum height of approximately 150 feet; 75% of water shed covered with second growth timber and brush, 25% under cultivation. One dwelling with outbuildings near lake, 1 to 20 feet above water surface.

Inlet—Fed entirely by springs.

Outlet—Small stream, 7 feet wide, 1 foot deep, flowing with considerable fall through rocky channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low lands at outlet.

Ownership—The Pocohontas Hunting & Fishing Club claims control of lake and surrounding country.

POCONO LAKE

Location—Southwestern Tobyhanna Township, northwestern Monroe County, on Tobyhanna Creek, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 78.9 square miles.

Elevation—1636, referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, irregular; maximum length 20,400 feet; maximum width 3,400 feet.

Area—510.3 acres.

Capacity—4,248 acre-feet or 1,384,000,000 gallons.

Depth—Prevailing 9 feet; maximum 27 feet.

Dam—Timber-crib, approximately 350 feet long, 31 feet high, with earth and stone fill. Spillway, two rectangular outlet gates and timber sluiceway provided for regulation of height of water.

Topography—Lake lies between two ranges of hills. Surrounding country for most part low and flat with gradual rise of about 50 feet. Private road almost completely circles lake, from 5 to 15 feet above water surface. Public highway and N. Y. S. & W. R. R. cross upper end on fills for distances approximately 500 to 800 feet. Of surrounding country 90% thickly wooded with second growth timber, 10% cultivated. Two large ice houses, 80 to 85 summer dwellings, 8 boat houses and other outbuildings around margin of lake, 2 to 40 feet above water surface.

Inlets—Tobyhanna Creek, 50 feet wide, 2 feet deep, flowing through clean rocky channel. Wagners Branch Creek, 30 feet wide, 1 foot deep, flowing through marshy ground for short distance, with clean channel. Upper Tunkhannock Creek, 40 feet wide, 2 feet deep, flowing through muddy channel, free of debris. Butts Run, 6 feet wide, 1 foot deep, flowing through clean rocky channel. Wolf Spring Run, 4 feet wide, 1 foot deep, flowing through clean rocky channel. Also fed by springs.

Outlet—Tobyhanna Creek, 120 feet wide, 2 feet deep, flowing with good fall through clean rocky channel.

Utilization—Ice harvesting and summer resort.

Navigation—Motor boats, sail boats and rowboats.

Opportunity for Storage—None; low ground at outlet and improvements on shore of lake.

Ownership—Pocono Lake Water Co. claims control. The lake is leased by Mountain Ice Co., for purpose of harvesting ice.

POCONO SUMMIT LAKE (Two parts)

Location—Southeastern Coolbaugh Township, central Monroe County, on Red Run, Middle Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.9 square mile.

Elevation—1822, referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular, rectangular; maximum length 3,360 feet; maximum width 2,080 feet.

Area—94.1 acres.

Capacity—249 acre-feet or 81,000,000 gallons.

Depth—Prevailing 4 feet; maximum 5 feet.

Dam—Earth and stone embankment, 1,500 feet long and 8 feet high. Timber-crib spillway partly washed out.

Topography—Lake, divided into two parts by D. L. & W. R. R. tracks, lies near top of mountains with surrounding country low and flat, and has gradual rise of about 40 feet on one side; approximately 90% covered with second growth, 10% cultivated. Four dwellings and several barns near the lake 8 to 10 feet above water surface.

Inlet—Red Run, 30 feet wide, 2 feet deep, flowing through swampy ground, with clean channel.

Outlet—Red Run, 15 feet wide, 1 foot deep, flowing through gravelly channel into swampy ground.

Utilization—Formerly used as storage reservoir for sawmill; also ice harvesting. D. L. & W. R. R. pumps water to storage tanks. Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Owned by private parties but leased by Lackawanna Mountain Ice Co.

POINTED LAKE

Location—Western Manchester Township, northeastern Wayne County, on Equinunk Creek, Upper Delaware Sub-basin.

Area—Less than 20 acres.

POPONOMING LAKE; old name SAYLORS LAKE

Location—Southwestern Hamilton Township, south central Monroe County, on Lake Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.4 square mile.

Elevation—641 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, irregular; maximum length 2,910 feet; maximum width 885 feet.

Area—39.5 acres.

Capacity—556 acre-feet or 181,000,000 gallons.

Depth—Prevailing 19 feet; maximum 24 feet.

Dam—None.

Topography—Steep hills on three sides rising to maximum height of 150 feet. Approximately 40% of surrounding country thinly covered with second growth timber, 60% under cultivation. Near lake 30 to 35 summer dwellings, outbuildings and large ice house, 2 to 20 feet above water surface.

Inlet—Fed by springs.

Outlet—Lake Creek, 8 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Ice harvesting and summer resort.

Navigation—Motor boats and rowboats.

Opportunity for Storage—None; low ground at outlet; small drainage area.

Ownership—Saylor's Lake Ice Co., and C. H. Latta claim control.

PORTERS LAKE

Location—Northern Porter Township, south central Pike County, on branch of Big Bushkill Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.3 square miles.

Elevation—1315, referred to State Highway Department levels from U. S. G. S. datum.

Shape—Irregular; maximum length 5,250 feet; maximum width 2,210 feet.

Area—224.0 acres.

Capacity—1,911 acre-feet or 623,000,000 gallons.

Depth—Prevailing 16 feet; maximum 18 feet.

Dam—Small regulating gate located on outlet, controlling head of 2 or 3 feet.

Topography—Portion of surrounding country flat, rising gradually to maximum height of 100 feet. Public roadway crosses outlet on small ridge. Approximately 90% of surrounding country densely wooded with second growth timber and brush, 10% cultivated. Near lake 13 boat houses, 2 large club houses with outbuildings and several cottages, 1 to 50 feet above water surface.

Inlet—Small stream, 3 feet wide, 6 to 8 inches deep, probably dry during summer months. Fed by springs.

Outlet—Branch of Big Bushkill Creek, 5 feet wide, 1 to 3 feet deep, flowing through channel full of debris.

Utilization—Private ice supply and summer resort. Used at one time for storage for sawmill located on outlet.

Navigation—Rowboats.

Opportunity for Storage—None, due to nature of surrounding country at outlet.

Ownership—The Porters Lake Hunting and Fishing Club claims control.

POSTS POND

Location—Central Bridgewater Township, central Susquehanna County, on branch of Meshoppen Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Elevation—1580 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—10.0 acres.

POYNTELLE, LAKE

Location—Central Preston Township, northwestern Wayne County, on branch of Equinunk Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.0 square mile.

Elevation—1955 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Triangular, irregular; maximum length 3,110 feet; maximum width 1,600 feet.

Area—63.5 acres.

Capacity—885 acre-feet or 288,000,000 gallons.

Depth—Prevailing 23 feet; maximum 28 feet.

Dam—None.

Topography—High ground on all sides rising rapidly to maximum height of 100 feet; practically all densely wooded with second growth timber. Borough of Poyntelle on high ground at side of lake.

Inlet—Branch of Equinunk Creek, 8 feet wide, flowing through clean rocky channel.

Outlet—Branch of Equinunk Creek, 8 feet wide, flowing rapidly through rocky channel.

Utilization—Private ice supply, summer resort and local water supply.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically.

Ownership—Several persons claim surrounding land; not limited to shore line.

PRESTON LAKE

Location—North central Buckingham Township, north central Wayne County, at headwaters of branch of Delaware River, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1390 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—16.2 acres.

PRICE POND

Location—Southern Manchester Township, northeastern Wayne County, on branch of Little Equinunk Creek, Upper Delaware Subbasin.

Type—Natural.

Drainage Area—Approximately 1.9 square miles.

Elevation—1235 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, regular; maximum length 1,405 feet; maximum width 840 feet.

Area—20.0 acres.

Capacity—232 acre-feet or 75,000,000 gallons.

Depth—Prevailing 22 feet; maximum 32 feet.

Dam—None.

Topography—Low grounds on all sides rising gradually to maximum height of 40 feet. Practically all covered with second growth timber.

Inlet—Branch of Little Equinunk Creek, 8 feet wide, flowing through clean channel.

Outlet—Branch of Little Equinunk Creek, 12 feet wide, flowing through clean channel.

Utilization—Boating and fishing.

Opportunity for Storage—Could be increased slightly.

Ownership—Several persons claim control.

PROMISE LAND POND; old name LAURELDALE POND

Location—Northeastern Greene and southern Palmyra townships, west central Pike County, on East Branch of Wallenpaupack Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 3.5 square miles.

Elevation—1727 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow; numerous arms, very irregular; maximum length 11,210 feet; average width 1,254 feet.

Area—422.3 acres.

Capacity—2,349 acre-feet or 765,000,000 gallons.

Depth—Prevailing 10 feet; maximum 15 feet.

Dam—Vertical dry stone wall, 160 feet long, 15 feet high, backed with earth and stone fill. Concrete sheathed spillway provided. Height of water varies 1 to 1.5 feet during year.

Topography—Surrounding country rises gradually from water edge, reaching maximum height of approximately 100 feet. Island of considerable area rises 25 to 30 feet above water surface. Practically entire watershed covered with second growth timber. Near pond, one dwelling and several outbuildings 20 to 25 feet above water surface.

Inlet—Small streams, 8 to 10 feet wide, 1 to 2 feet deep, flowing through marshy ground.

Outlet—East Branch Wallenpaupack Creek, 20 feet wide, 1 to 2 feet deep, flowing through rocky channel.

Utilization—Private ice supply and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; high ground at outlet.

Ownership—Commonwealth of Pennsylvania under jurisdiction of the Department of Forestry.

PURDYS DAM

Location—Eastern New Milford Township, east central Susquehanna County, on Saltlick Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Elevation—1485 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—17.5 acres.

PURDYS POND; also called LOCKLIN LAKE

Location—Western Paupack Township, southeastern Wayne County, on Lakeville Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 3.2 square miles.

Elevation—1215 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, regular; maximum length 4,770 feet; maximum width 810 feet.

Area—61.0 acres.

Capacity—273 acre-feet or 89,000,000 gallons.

Depth—Prevailing 10 feet; maximum 11 feet.

Dam—Dry stone wall, 200 feet long, 10 feet high, with earth fill. Spillway provided.

Topography—High ground on three sides rising gradually to maximum height of 100 feet. About 75% of surrounding country covered with second growth timber, 25% cultivated. Village of Lakeville immediately below pond on outlet.

Inlet—Lakeville Creek, 8 feet wide, 1 foot deep, flowing through clean channel.

Outlet—Lakeville Creek, 8 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—D. A. Locklin, Lakeville, claims control.

QUAKER LAKE

Location—Central Silver Lake Township, northwestern Susquehanna County, on Little Snake Creek, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural; dam flooded small additional area.

Drainage Area—Approximately 1.1 square miles.

Elevation—1484 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, regular; maximum length 4,800 feet; maximum width 1,870 feet.

Area—127.0 acres.

Capacity—4,595 acre-feet or 1,497,000,000 gallons.

Depth—Prevailing 45 feet; maximum 67 feet.

Dam—Two vertical dry stone walls, approximately 75 feet long, 10 feet high, with earth and stone fill, and 50 feet of concrete core wall. Pipe outlet regulates height of water. Water lowered 3 feet during summer season.

Topography—Hills on all sides rise gradually, reaching maximum height of 125 feet. Public and private roads around lake, 3 to 8 feet above water surface. Approximately 20% of country densely wooded with second growth timber, 80% cultivated. Around margin of lake are 28 dwellings, 25 boat houses and other buildings, 1 to 25 feet above water surface.

Inlet—Little Snake Creek, 5 feet wide, 1 foot deep; practically dry in summer time. Fed by springs.

Outlet—Little Snake Creek, 3 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Private ice supply and summer resort; used at one time as storage pond for grist mill.

Navigation—Motor boats and rowboats.

Opportunity for Storage—Good, topographically, not economical; small drainage area.

Ownership—Private parties claim land to shore line only.

QUINSIGAMOND, LAKE

Location—Southwestern South Canaan Township, west central Wayne County, on branch of Middle Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 4.7 square miles.

Elevation—1330 (Bar.) referred to U. S. G. S. datum.

Shape—Long and narrow, very irregular; maximum length 6,815 feet; maximum width 800 feet.

Area—68.9 acres.

Capacity—191 acre-feet or 62,000,000 gallons.

Depth—Prevailing 6 feet; maximum 8 feet.

Dam—Dry stone wall, 50 feet long, 12 feet high, backed with earth and stone fill. Spillway and two sluiceways regulate height of water.

Topography—Surrounding country under cultivation, rising in places to maximum height of 100 feet. One end of lake exceedingly marshy. Two cottages and mill near lake.

Inlet—Four small streams, 8 feet wide, 6 inches deep, flowing through clean channels.

Outlet—Branch of Middle Creek, 20 feet wide, 1 foot deep, flowing swiftly through clean rocky channel.

Utilization—Private ice supply, summer resort and water power for mill.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Miss Steele, Scranton, claims lake; Witfield Keiser, Varden, has water rights for mill purposes.

REININGS POND (See COLLINS POND)

RILLIE LAKE; old name, WILLIS LAKE

Location—Eastern Gibson Township, east central Susquehanna County, on branch of Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.3 square mile.

Elevation—1424 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—25.3 acres.

Capacity—347 acre-feet or 113,000,000 gallons.

Depth—Prevailing 21 feet; maximum 30 feet.

Dam—None.

Topography—Steep hills on three sides; other side rises approximately 12 feet in 200 feet, then slopes rapidly to small stream in hollow 350 feet away; 60% of surrounding country covered with second growth timber and brush, 10% with virgin timber; 30% cultivated. Two cottages near lake 8 to 10 feet above water surface.

Inlet—Small stream, practically dry during summer months, about 1 foot wide, 6 inches deep, with clean rocky channel. Also fed by springs.

Outlet—Small stream, branch of Tunkhannock Creek, flowing through deep cut at northwest corner of lake, 3 feet wide, 1.5 to 2 feet deep, with clean gravelly bottom. Stream falls at rate of 1 foot in 4 feet for a considerable distance.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low country at outlet, and steep surrounding slopes.

Ownership—Mrs. George Rine claims control.

ROBINSONS POND (See OREONOBA LAKE)

ROBINSONS POND; or WINONA, LAKE

Location—Eastern Palmyra Township, northwestern Pike County, on branch of Wallenpaupack Creek, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1465 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—18.3 acres.

ROBINSONS POND (See ROTTS POND)

ROCK LAKE

Location—Northeastern Mount Pleasant Township, north central Wayne County, on tributary of West Branch Dyberry Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.1 square miles.

Elevation—1530 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Oval, fairly regular; maximum length 2,635 feet; maximum width 1,800 feet.

Area—73.8 acres.

Capacity—1,298 acre-feet or 423,000,000 gallons.

Depth—Prevailing 34 feet; maximum 40 feet.

Dam—None.

Topography—Surrounded by high ground rising rapidly to maximum height of 50 feet; all covered with second growth timber.

Inlet—Fed by springs.

Outlet—Tributary of West Branch Dyberry Creek, 4 feet wide, flowing through rocky channel.

Utilization—Private ice supply, summer resort and camping ground.

Navigation—Rowboats.

Opportunity for Storage—Good; exceedingly steep banks at outlet.

Ownership—Private control.

ROCKY HILL POND

Location—Southwestern Dingman Township, central Pike County, on headwaters of Rocky Hill Creek, Upper Delaware Sub-basin.

Type—Natural.

Area—Approximately 15 acres.

ROOTS POND (See BRUCE LAKE)

ROSE, LAKE

Location—Northwestern Fairmount Township, northwestern Luzerne County, on Kitchen Creek, Lower North Branch Susquehanna Sub-basin.

Type—Originally natural.

Drainage Area—Approximately 4.4 square miles.

Elevation—2200 (Bar.) referred to L. V. R. R. levels.

Shape—Very irregular; maximum length 3,280 feet; maximum width 1,370 feet.

Area—47.0 acres.

Capacity—264 acre-feet or 86,000,000 gallons.

Depth—Prevailing 10 feet; maximum 20 feet.

Dam—Timber-crib 150 feet long, 16 feet high, with earth and stone fill. Timber-crib spillway and sluiceway provided for regulation of height of water.

Topography—Surrounded by high ground, rising gradually to maximum height of 70 feet. Practically entire watershed covered with second growth timber. Near lake one cottage 15 feet above water surface.

Inlet—Small stream, 10 feet wide, 1 to 2 feet deep, flowing through clean channel.

Outlet—Kitchen Creek, 15 feet wide, 1 to 2 feet deep, flowing through clean rocky channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Col. R. B. Ricketts, Forty Fort, claims control.

ROSE LAKE

Location—North central Allegany Township, north central Potter County, Genesee Basin.

Type—Natural; mostly swamp.

Area—Approximately 5 acres.

ROSE POND

Location—Western Lebanon Township, north central Wayne County, on tributary of East Branch Dyberry Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.5 square miles.

Elevation—1670 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, long and irregular; maximum length 2,760 feet; maximum width 1,400 feet.

Area—46.6 acres.

Capacity—531 acre-feet or 173,000,000 gallons.

Depth—Prevailing 24 feet; maximum 34 feet.

Dam—None.

Topography—Pond between two ranges of hills. Ground on both sides rises gradually from water edge. Both ends slightly swampy. Practically entire surrounding country covered with second growth timber. One dwelling near lake.

Inlet—Tributary of East Branch Dyberry Creek, 4 feet wide, 1 foot deep, flowing through marshy ground.

Outlet—Tributary of East Branch Dyberry Creek, 20 feet wide, 1 foot deep, flowing through marshy ground.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Private control; limited to shore line.

ROTTS POND; old name, ROBINSONS POND

Location—Central Lenox Township, southeastern Susquehanna County, on tributary of East Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 6 acres.

ROUGH POND

Location—Eastern Colley Township, east central Sullivan County, on headwaters of tributary of South Branch Loyalsock Creek, Lower West Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 8 acres.

ROUND POND

Location—Eastern Kidder Township, northeastern Carbon County, on branch of Tunkhannock Creek, Middle Delaware Sub-basin.

Type—Natural.

Elevation—1650 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—11.6 acres.

ROUND POND

Location—Northeastern Lenox and northwestern Clifford townships, southeastern Susquehanna County, on tributary of East Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.2 square mile.

Elevation—1362 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Elliptical, fairly regular; maximum length 1,840 feet; maximum width 790 feet.

Area—23.2 acres.

Capacity—310 acre-feet or 101,000,000 gallons.

Depth—Prevailing 20 feet; maximum 38 feet.

Dam—None.

Topography—Pond lies at base of two hills, ground rising gradually to maximum height of 100 feet. Public road parallels one side for 1,000 feet, 4 to 8 feet above water surface; two farm dwellings near pond 25 feet above water surface.

Inlet—Fed by springs.

Outlet—Tributary of East Branch Tunkhannock Creek, 6 feet wide, 1 foot deep, flowing through clean rocky channel.

Utilization—Private ice supply, boating and fishing. Small pumping plant on outlet raises water to private residence.

Navigation—Rowboats.

Opportunity for Storage—Could be slightly increased.

Ownership—Private control.

RYMANS POND; or CATALPA LAKE

Location—North central Dallas Township, northern Luzerne County, on branch of Leonard Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 2.1 square miles.

Elevation—1270 (Bar.) referred to U. S. G. S. datum.

Shape—Triangular, very irregular; maximum length 3,200 feet; maximum width 2,350 feet.

Area—77.7 acres.

Capacity—267 acre-feet or 87,000,000 gallons.

Depth—Prevailing 6 feet; maximum 12 feet.

Dam—Vertical dry stone wall, 110 feet long, 20 feet high, backed with earth and stone fill, with roadway on top. Spillway and outlet pipe provided for regulation and control.

Topography—High ground on three sides, rising gradually to maximum height of 250 feet. Public road parallels two sides, 6 to 10 feet above water surface. Practically entire surrounding country covered with second growth timber. Two farm houses near pond, 30 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Leonard Creek, 6 feet wide, 2 inches deep, flowing swiftly through clean rocky channel.

Utilization—Private ice supply, boating, fishing and water power for sawmill.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Abraham Nesbit, Kingston, claims control.

SAND POND; also called CLEMO, LAKE

Location—Southeastern Cherry Ridge Township, south central Wayne County, at headwaters of branch of Wungum Brook, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.6 square mile.

Elevation—1465 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, very irregular; maximum length 3,415 feet; maximum width 1,490 feet.

Area—84.7 acres.

Capacity—1,740 acre-feet or 567,000,000 gallons.

Depth—Prevailing 32 feet; maximum 49 feet.

Dam—None.

Topography—Surrounded by low ground, rising gradually to maximum height of 20 feet. Public road parallels one side. Almost entire surrounding country covered with second growth timber, few acres under cultivation. One dwelling and two barns on shore.

Inlet—Fed by springs.

Outlet—Branch of Wungum Brook, 3 feet wide, 2 feet deep, flowing through rocky channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Could be slightly increased; high banks at outlet.

Ownership—Mrs. Sara Ripple Est., Scranton, claims control.

SANDY LAKE

Location—Lake and Sandy Lake townships, east central Mercer County, Upper Allegheny Sub-basin.

Type—Natural.

Drainage Area—4.5 square miles.

Elevation—1158, referred to U. S. G. S. datum.

Shape—Triangular, rather irregular; maximum length 5,070 feet; maximum width 1,930 feet.

Area—149.7 acres.

Capacity—3,359 acre-feet or 1,094,000,000 gallons.

Depth—Prevailing 25 feet; maximum 40 feet.

Dam—None.

Topography—Low ground on three sides rising gradually from water edge. North side rises steeply to maximum height of 340 feet. Inlet and outlet ends exceedingly swampy. Approximately 25% of surrounding country sparsely wooded with second growth timber, 75% cultivated. Water in lake somewhat contaminated by sulphurous mine waste. Around shores are 14 cottages, 1 hotel, a manufacturing plant, 2 ice houses, numerous boat houses, and portion of Borough of Stoneboro, all approximately 2 to 30 feet above water surface.

Inlets—Small stream, 1 foot wide, 1 foot deep, somewhat sulphurous. Minnie Run, 4 feet wide, 1 foot deep, flowing through marshy ground. Also fed by springs.

Outlet—Called the "Outlet", 10 to 12 feet deep, flowing through marshy ground for approximately a mile to confluence with Sandy Creek.

Utilization—Ice harvesting, summer resort and water supply for a magnesia manufacturing plant.

Navigation—Motor boats and rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Private and corporate; not limited to shore line. Lakeside Park Co. largest owner.

SAW CREEK CLUB POND

Location—Southeastern Porter Township, south central Pike County, on Middle Bushkill or Saw Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 19.7 square miles.

Elevation—987 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, irregular; maximum length 3,385 feet; maximum width 850 feet.

Area—45.3 acres.

Capacity—112 acre-feet or 36,000,000 gallons.

Depth—Prevailing 4 feet; maximum 10 feet.

Dam—Timber-crib 550 feet long, 15 feet high, with earth and stone fill. Spillway and fishway provided.

Topography—Low hills on three sides rising steeply to maximum height of 50 feet. Entire surrounding country covered with second growth timber. Several boat houses, a club house and outbuildings near pond, 1 to 15 feet above water surface.

Inlet—Saw Creek, 10 to 15 feet wide, 1 to 2 feet deep, flowing through marshy ground. Also fed by springs.

Outlet—Saw Creek, 15 to 20 feet wide, 1 to 3 feet deep, flowing with a good fall through rocky channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Could be increased; steep banks at outlet.

Ownership—Saw Creek Club claims control.

SAWKILL POND

Location—North Dingman Township, east central Pike County, on Saw Kill, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.9 square miles.

Elevation—1216, referred to U. S. G. S. datum.

Shape—Oval, irregular; maximum length 2,900 feet; maximum width 1,250 feet.

Area—48.6 acres.

Capacity—296 acre-feet or 96,000,000 gallons.

Depth—Prevailing 9 feet; maximum 11 feet.

Dam—None.

Topography—Surrounded by high ground, rising gradually to maximum height of 200 feet; 85% covered with second growth timber; 15% under cultivation. Several dwellings considerable distance from pond, 50 feet above water surface.

Inlet—Small stream, 5 feet wide, 1.5 feet deep, flowing through marshy ground. Also fed by springs.

Outlet—Saw Kill, 10 feet wide, 1.5 feet deep, flowing through clean sandy channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Mary Phillips claims pond, limited to shore line.

SAYLORS LAKE (See POPONOMING LAKE)

SCHAPPS POND (See SILVER LAKE)

SCHOOLEYS POND

Location—Eastern Springville Township, south central Susquehanna County, on Pond Brook, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.8 square mile.

Elevation—1233 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Elliptical, irregular; maximum length 1,900 feet; maximum width 1,055 feet.

Area—39.3 acres.

Capacity—873 acre-feet or 284,000,000 gallons.

Depth—Prevailing 30 feet; maximum 44 feet.

Dam—None.

Topography—Hills on three sides rising gradually to maximum height of 100 feet. Approximately 90% of surrounding country cultivated, 10% covered with second growth timber. Public road parallels one side for distance of 1,000 feet, 8 to 10 feet above water surface. Five farm houses and outbuildings near pond, 15 to 20 feet above water surface.

Inlet—Several very small streams, dry during summer months. Also fed by springs.

Outlet—Pond Brook, 2 feet wide, 1 foot deep, flowing through swampy ground and clean channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; due to low ground around outlet.

Ownership—Private control; not limited to shore line.

SCOTT LAKE; old name, PERCH POND

Location—Western Blooming Grove Township, west central Pike County, on branch of Shohola Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.7 square mile.

Elevation—1610 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, irregular; maximum length 2,500 feet; maximum width 640 feet.

Area—28.6 acres.

Capacity—291 acre-feet or 95,000,000 gallons.

Depth—Prevailing 10 feet; maximum 17 feet.

Dam—None.

Topography—Surrounding country flat and low for some distance, with cranberry bog on two sides; thence rising gradually to maximum height of 150 feet. Entire watershed covered with second growth timber.

Inlet—Small stream, 4 feet wide, 6 inches deep, flowing through marshy ground, channel full of debris. Also fed by springs.

Outlet—Branch of Shohola Creek, 10 feet wide, 1 foot deep, flowing through marshy ground.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet. Dam site available at point short distance downstream.

Ownership—Blooming Grove Hunting & Fishing Club claims control.

SCRANTON, LAKE

Location—City of Scranton, Lackawanna County, Lower North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—6.0 square miles.

Elevation—1282 referred to U. S. G. S. datum.

Area—225.2 acres.

Capacity—7,726 acre-feet or 2,518,000,000 gallons.

Dam—Masonry and earth embankment.

Utilization—Water supply, city of Scranton.

Ownership—Scranton Gas & Water Company, Scranton.

SEATON LAKE

Location—Northeastern Wharton Township, southeastern Fayette County, on Big Meadow Run, Monongahela Sub-basin.

Type—Artificial.

Elevation—1950, referred to U. S. G. S. datum.

Area—Approximately 77 acres.

Capacity—100,000,000 gallons.

SECOND POND (See TAMINENT, LAKE)

SEVEN MILE POND; also called UNDERWOOD, LAKE

Location—East central Preston Township, north central Wayne County, on branch of Equinunk Creek, Upper Delaware Sub-basin.

Type—Originally natural; dam caused slight increase in submergence.

Drainage Area—Approximately 1.7 square miles.

Elevation—1415 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Oval, irregular; maximum length 3,360 feet; maximum width 1,350 feet.

Area—72.9 acres.

Capacity—1,112 acre-feet or 362,000,000 gallons.

Depth—Prevailing 26 feet; maximum 32 feet.

Dam—Vertical dry stone wall, 80 feet long, 8 feet high, backed with earth and stone fill. Spillway provided for regulation of height of water.

Topography—Surrounded by high ground rising rapidly to maximum height of 50 feet; all covered with second growth timber. Large club house stands on hill overlooking lake.

Inlet—Kellog Creek, 6 feet wide, flowing through marshy ground, with channel full of debris. Also fed by springs.

Outlet—Branch of Equinunk Creek, 12 feet wide, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Motor boats and rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Lake Underwood Nimrod Club claims control.

SEYLEYS POND (See ECHO LAKE)

SHARPES POND

Location—Western Windham Township, northwestern Wyoming County, on Little Mehoopany Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.0 square miles.

Elevation—1090 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 2,785 feet; maximum width 1,300 feet.

Area—45.8 acres.

Capacity—211 acre-feet or 69,000,000 gallons.

Depth—Prevailing 8 feet; maximum 15 feet.

Dam—Vertical dry stone wall, 60 feet long, 10 feet high, backed with earth and stone fill. Spillway provided.

Topography—Pond lies between two ranges of hills, ground rising steeply, reaching maximum height of 200 feet. Public road parallels one side, 2 to 10 feet above water surface. About 35% of surrounding country covered with second growth timber, 65% under cultivation.

Inlet—Little Mehoopany Creek, 5 feet wide, 6 inches deep, flowing through marshy ground.

Outlet—Little Mehoopany Creek, 6 feet wide, 6 inches deep, flowing through clean channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—E. C. Sharpe, R. F. D., Laceyville, claims control.

SHEHAWKEN POND (See CHEHOCTON POND)

SHEIK POND, or SHERIDAN, LAKE

Location—West central Benton Township, northwestern Lackawanna County, on Sheik Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 5.3 square miles.

Elevation—1070 (Bar.) referred to U. S. G. S. datum.

Shape—Long and narrow; maximum length 5,700 feet; maximum width 1,060 feet.

Area—86.7 acres.

Capacity—539 acre-feet or 176,000,000 gallons.

Depth—Prevailing 11 feet; maximum 20 feet.

Dam—Vertical dry stone wall, 130 feet long, 15 feet high, faced with concrete. Public roadway on top. Concrete spillway and outlet pipe provided for regulating height of water.

Topography—Surrounded by high ground, rising gradually to maximum height of 200 feet. Public road parallels two sides, 2 to 60 feet above water surface. About 75% of surrounding country covered with second growth timber, 25% cultivated. Twenty-four summer cottages and one hotel near lake, 8 to 30 feet above water surface.

Inlets—Small stream, 10 feet wide, 1.5 feet deep, flowing through swampy ground. Sheik Creek, 10 feet wide, 1 foot deep, flowing through clean rocky channel.

Outlet—Sheik Creek, 12 feet wide, 2 feet deep, flowing swiftly through clean rocky channel.

Utilization—Private ice supply, water supply for Factoryville, and summer resort.

Navigation—Motor boats and rowboats.

Opportunity for Storage—Could be increased; steep banks at outlet.

Ownership—Private control.

SHIBLEYS POND

Location—West central Nicholson Township, northeastern Wyoming County, on branch of Bartholemew Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Elevation—1195 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—16.0 acres.

SHIELDSBORO POND

Location—Central Lebanon Township, north central Wayne County, on East Branch of Dyberry Creek, Upper Delaware Sub-basin.

Area—Approximately 10 acres.

SHOHOLA FALLS DAM, LOWER; or HILLIARD, LAKE

Location—Eastern Blooming Grove, and northwestern Dingman townships, central Pike County, on Shohola Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 60 square miles.

Elevation—1151 referred to U. S. G. S. datum.

Shape—Long and narrow, very irregular; maximum height 17,600 feet; maximum width 1,800 feet.

Area—569.9 acres.

Capacity—2,164 acre-feet or 705,000,000 gallons.

Depth—Prevailing 6 feet; maximum 11 feet.

Dam—Timber-crib, approximately 1,000 feet long, 14 feet high, with earth and stone fill. Timber sluiceway regulates height of water.

Topography—Lake lies between two ranges of hills rising steeply in places, reaching maximum height of 360 feet. Approximately 98% of surrounding country covered with second growth timber, 2% cultivated. Lake one of number of logging pools. Sawmill and lumber camp, dwellings on surrounding hills at considerable height above dam.

Inlets—Shohola Creek, 20 feet wide, 3 to 4 feet deep, flowing through marshy ground, clean channel. Rattlesnake Creek, 20 to 30 feet wide, 2 to 3 feet deep, flowing through marshy ground for some distance. Half-mile Brook, 15 to 20 feet wide, 2 feet deep. Also fed by springs.

Outlet—Shohola Creek, 15 feet wide, 1 foot deep, flowing with good fall in clean rocky channel.

Utilization—Boating and fishing. Principal use is storage dam for "running" logs. A hydroelectric development has been proposed.

Navigation—Motor boats and rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Shohola Falls Land Co. claims control.

SICKLERS POND

Location—West central Greenfield Township, north central Lackawanna County, on tributary of South Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 4.1 square miles.

Elevation—1170 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, very irregular; maximum length 5,690 feet; maximum width 1,735 feet.

Area—93.8 acres.

Capacity—328 acre-feet or 107,000,000 gallons.

Depth—Prevailing 6 feet; maximum 10 feet.

Dam—Dry stone wall, 150 feet long, 9 feet high, backed with earth and stone fill. Stone spillway and timber outlet flume regulates height of water.

Topography—Lake lies between two ranges of hills, ground rising steeply from water edge to maximum height of 150 feet; 25% of surrounding country covered with second growth timber, 75% cultivated. Marshy around shore, with stumps and snags. Four or five farm houses near pond 6 to 10 feet above water surface.

Inlet—Tributary of South Branch Tunkhannock Creek, 6 to 8 feet wide, 2 feet deep, flowing through marshy ground, channel filled with debris. Also fed by springs.

Outlet—Tributary of South Branch Tunkhannock Creek, 4 feet wide, 6 inches deep, flowing rapidly through good rocky channel.

Utilization—Private ice supply, boating, fishing and regulating pond for saw mill; cider mill on outlet.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Private control.

SILKWORTH, LAKE (See THREE CORNERED POND)

SILVER LAKE, also called MILL POND

Location—At Bristol Borough, south central Bristol Township, southeastern Bucks County, on Mill Creek, Middle Delaware Subbasin.

Area—Approximately 15 acres.

SILVER LAKE; also called EDGEMERE LAKE; old name SCHAPPS POND

Location—Western Delaware Township, south central Pike County, on Dingmans Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.0 square miles.

Elevation—1308 referred to U. S. G. S. datum.

Shape—Long and irregular; maximum length 6,055 feet; maximum width 1,600 feet.

Area—138.0 acres.

Capacity—3,706 acre-feet or 1,207,000,000 gallons.

Depth—Prevailing 33 feet; maximum 45 feet.

Dam—None; however, about 500 feet from lake on outlet is wooden sluiceway with gate to regulate water during heavy rainfall.

Topography—Steep hills on three sides rising to maximum height of 100 feet. Of surrounding country, 95% covered with second growth timber, 5% cultivated. Ten summer cottages near lake, and ten boat houses on lake.

Inlet—Fed by springs.

Outlet—Dingmans Creek, 6 feet wide, 2 feet deep, flowing through clean channel between steep banks.

Utilization—Private ice supply, private water supply and summer resort.

Navigation—Launches, sailboats and rowboats.

Opportunity for Storage—None, topographically.

Ownership—The Edgemere Club owns greater part of land.

SILVER LAKE

Location—Southern Silver Lake Township, northwestern Susquehanna County, on Silver Creek, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural.

Drainage Area—Approximately 1.7 square miles.

Elevation—1718 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, triangular, irregular; maximum length 3,460 feet; maximum width 1,700 feet.

Area—83.3 acres.

Capacity—3,180 acre-feet or 1,036,000,000 gallons.

Depth—Prevailing 51 feet; maximum 100 feet.

Dam—Vertical dry stone wall, 75 feet long, 5 feet high, backed with earth and stone fill. Spillway provided.

Topography—Surrounded almost entirely by densely wooded hills. Ground rises gradually, in most places reaching maximum height of 200 feet. Approximately 90% of surrounding country thickly covered with second growth and virgin timber, 10% cultivated. Ten summer cottages, two dwellings, several barns and sheds and seven boat houses 1 to 15 feet above water surface.

Inlet—Fed by springs.

Outlet—Silver Creek, 6 feet wide, 6 inches deep, flowing through clean gravelly channel.

Utilization—Private ice supply, private water supply and summer resort.

Navigation—Sailboats and rowboats.

Opportunity for Storage—Good, topographically.

Ownership—Private control of lake and surrounding country.

SILVER LAKE

Location—Southern Fairview Township, northern York County, on Bennett Run, Lower Main Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 5.0 square miles.

Elevation—434, referred to U. S. G. S. datum.

Slope—Long and narrow, irregular; maximum length 2,150 feet; maximum width 800 feet.

Area—24.3 acres.

Capacity—81 acre-feet or 26,000,000 gallons.

Depth—Prevailing 6 feet; maximum 7 feet.

Dam—Earth and stone embankment, about 200 feet long, 8 feet high. Timber gate provided for regulation of height of water.

Topography—Low, flat country on all sides. Ground rises on south into range of hills approximately 450 feet in height. One end of lake very marshy. Public road parallels one side for about 1,500 feet, 6 to 20 feet above water surface. Cultivated, except narrow strip of timber entirely around shore averaging 20 to 30 feet in width. Three or four farm houses near lake, 10 to 30 feet above water surface.

Inlets—Bennett Run, 6 feet wide, 2 feet deep, flowing through clean sandy channel. Small stream, 7 feet wide, 1 foot deep, flowing through clean sandy channel.

Outlet—Through headrace to mill, then into Bennett Run, 10 feet wide, 2 to 3 feet deep, flowing through clean sandy channel.

Utilization—Private ice supply, boating, fishing and water power for grist mill.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Lewis Cline, Lewisberry, claims control.

SIMS POND (See WELCOME LAKE)

SLY POND

Location—Eastern Preston Township, north central Wayne County, on Equinunk Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.4 square mile.

Elevation—1445 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Triangular, irregular; maximum length 2,400 feet; maximum width 1,600 feet.

Area—52.5 acres.

Capacity—843 acre-feet or 275,000,000 gallons.

Depth—Prevailing 28 feet; maximum 54 feet.

Dam—None.

Topography—Low ground on all sides rising gradually from water edge. Entire surrounding country wooded with second growth timber.

Inlet—Fed by springs.

Outlet—Equinunk Creek, 5 feet wide, flowing through open channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet.

Ownership—Several persons claim control.

SMITH POND

Location—Central Dorrance Township, south central Luzerne County, on Little Wapwallopen Creek, Lower North Branch Susquehanna Sub-basin.

Area—Approximately 6 acres.

SNAG POND

Location—Western Lehigh Township, southwestern Wayne County, on branch of Lehigh River, Middle Delaware Sub-basin.

Type—Natural.

Area—Approximately 10 acres.

SNOOKS POND

Location—Southern Jefferson Township, east central Lackawanna County, on West Branch Wallenpaupack Creek, Upper Delaware Sub-basin.

Area—Approximately 2 acres.

SOUTH POND

Location—Southeastern Ross Township, northwestern Luzerne County, on branch of Hunlock Creek, Lower North Branch Susquehanna Sub-basin.

Type—Originally natural; dam materially increased submergence.

Drainage Area—Approximately 1.8 square miles.

Elevation—1205, referred to U. S. G. S. datum.

Shape—Triangular, regular; maximum length 2,960 feet; maximum width 1,935 feet.

Area—81.2 acres.

Capacity—965 acre-feet or 314,000,000 gallons.

Depth—Prevailing 19 feet; maximum 30 feet.

Dam—Concrete, 35 feet long, 5 feet high. Outlet pipe regulates height of water.

Topography—Surrounding country generally low, rising to maximum height on west side of 100 feet. At one end of lake, ground very flat and swampy. Practically entire watershed covered with second growth timber. One boat house at water edge.

Inlet—Branch of Hunlock Creek, 2 feet wide, 6 inches deep, flowing through marshy ground, with channel strewn with debris. Also fed by springs.

Outlet—Branch of Hunlock Creek, 8 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Mrs. Ella Benscoter, Hunlock Creek, claims control.

SOUTH POND; old name ELY LAKE

Location—Western Brooklyn Township, south central Susquehanna County, on branch of Meshoppen Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.7 square mile.

Elevation—1271 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Circular, rather irregular; approximate diameter 1,160 feet.

Area—34.0 acres.

Capacity—1,277 acre-feet or 416,000,000 gallons.

Depth—Prevailing 58 feet; maximum 75 feet.

Dam—None.

Topography—High hills on all sides rising rapidly to maximum height of 100 feet. Public road parallels one side for about 400 feet, 10 feet above water surface. Approximately 20% of surrounding country covered with second growth timber, 80% cultivated. Three summer cottages and three farm houses near pond, 5 to 20 feet above water surface.

Inlet—Fed by springs.

Outlet—Small branch of Meshoppen Creek, 6 feet wide, 1 foot deep, flowing through clean gravelly channel.

Utilization—Private ice supply and summer resorts.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Private control of lake, not limited to shore line.

SOUTHWORTH POND

Location—Southwestern Liberty Township, north central Susquehanna County, on branch of Snake Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Area—Approximately 1.0 acre.

SPRING POND (See MOODY POND)

SPRUCE POND

Location—Eastern Preston Township, north central Wayne County, on small branch of Equinunk Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.3 square mile.

Elevation—1470 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Oval, regular; maximum length 1,510 feet; maximum width 850 feet.

Area—20.0 acres.

Capacity—185 acre-feet or 60,000,000 gallons.

Depth—Prevailing 19 feet; maximum 22 feet.

Dam—None.

Topography—High ground on all sides rising rapidly from water edge. Practically all surrounding country covered with second growth timber.

Inlet—Fed by springs.

Outlet—Branch of Equinunk Creek, 10 feet wide, flowing through clean channel.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Could be increased; steep banks at outlet.

Ownership—Peter J. Madigan, Lakewood, claims control.

SPRUCE CABIN POND

Location—Central Barrett Township, northeastern Monroe County, on branch of Brodheads Creek, Upper Delaware Sub-basin.

Area—Approximately 15 acres.

STAGMIER POND

Location—Southeastern Lehigh Township, south central Lackawanna County, on Pond Creek, Lower North Branch Susquehanna Sub-basin.

Area—Approximately 5 acres.

STANLEY POND

Location—Southwestern Choconut Township, northwestern Susquehanna County, on branch of Choconut Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.6 square miles.

Elevation—1490 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, rather irregular; maximum length 2,175 feet; maximum width 1,070 feet.

Area—29.7 acres.

Capacity—118 acre-feet or 39,000,000 gallons.

Depth—Prevailing 5 feet; maximum 7 feet.

Dam—Stone masonry wall, about 120 feet long, 12 feet high, backed with earth and stone embankment, with a roadway on top. Stone spillway provided.

Topography—Pond lies between two ranges of hills rising gradually to maximum height of 175 feet. About 10% of surrounding country covered with second growth timber, 90% under cultivation. Four farm houses and outbuildings near pond, 15 to 30 feet above water surface.

Inlet—Small stream, 10 feet wide, 1 foot deep, flowing through marshy ground, channel full of debris.

Outlet—Branch of Choconut Creek, 6 feet wide, 6 inches deep, flowing through rocky channel full of debris.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Private parties claim control.

STANTON POND (See LADORE, LAKE)

STAR POND

Location—Northeastern Scott Township, northern Wayne County, on branch of Balls Creek, Upper Delaware Sub-basin.

Area—Approximately 15 acres.

STARE DAM

Location—Southeastern Colley Township, southeastern Sullivan County, on Mehoopany Creek, Lower North Branch Susquehanna Sub-basin.

Type—Artificial.

Area—Approximately 5 acres.

STARLIGHT LAKE; also called LIZARD LAKE

Location—Scott and Buckingham townships, north central Wayne County, on branch of Chehocton Creek, Upper Delaware Sub-basin.

Type—Originally natural; dam caused slight increase in submergence.

Drainage Area—Approximately 2.3 square miles.

Elevation—1345 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Long, irregular; maximum length 2,880 feet; maximum width 1,035 feet.

Area—39.9 acres.

Capacity—517 acre-feet or 168,000,000 gallons.

Depth—Prevailing 24 feet; maximum 39 feet.

Dam—Dry stone wall, 50 feet long, 8 feet high, faced with concrete. Spillway, with provisions for flash boards, regulates height of water.

Topography—Surrounding country generally high rising rapidly from water edge. Public road parallels shore. Entire surrounding country covered with second growth timber.

Inlet—Branch of Chehocton Creek, 3 feet wide, 6 inches deep, flowing through clean channel.

Outlet—Branch of Chehocton Creek, 6 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Several persons claim surrounding country, limited to shore line.

STARRS POND

Location—South central Asylum Township, southeastern Bradford County, on Burell Creek, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 15 acres.

STATES POND

Location—Northern North Abington Township, northwestern Lackawanna County, on South Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Area—Approximately 5 acres.

STATES POND

Location—South Springville Township, south central Susquehanna County, on Meshoppen Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Area—Approximately 8 acres.

STEARNS LAKE

Location—Northern Gibson Township, east central Susquehanna County, on branch of Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.9 square mile.

Elevation—1523 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, irregular; maximum length 2,600 feet; maximum width 1,090 feet.

Area—38.5 acres.

Capacity—1,052 acre-feet or 343,000,000 gallons.

Depth—Prevailing 36 feet; maximum 64 feet.

Dam—None.

Topography—Surrounded by steep hills rising rapidly to maximum height of approximately 150 feet; 90% thickly covered with second growth and virgin timber, 10% under cultivation.

Inlet—Two small streams, practically dry during the summer months, about 2 to 3 feet wide, 6 to 8 inches deep. Also fed by springs.

Outlet—Branch of Tunkhannock Creek, 8 feet wide, 1 foot deep, with gravelly channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically.

Ownership—Several persons claim lake, limited to shore line.

STILLWATER LAKE; also called TUNKHANNOCK LAKE

Location—Eastern Tobyhanna Township, central Monroe County, on Upper Tunkhannock Creek, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 14.2 square miles.

Elevation—1814, referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 6,550 feet; maximum width 3,140 feet.

Area—272.2 acres.

Capacity—1,334 acre-feet, or 435,000,000 gallons.

Depth—Prevailing 6 feet; maximum 12 feet.

Dam—Timber-crib 450 feet long, 8 feet high, with earth and stone fill. Timber and concrete spillway and outlet pipes regulate height of water.

Topography—Lake very swampy at one end. Surrounding country generally low and flat, rising to maximum height of 50 feet on south side. Track of D. L. & W. R. R. parallels one side for distance of approximately 3,500 feet, and 3 to 5 feet above water surface. Approximately 90% of surrounding country wooded with second growth timber, 10% under cultivation. Two ice houses, five dwellings and several barns near lake, 5 to 10 feet above water surface.

Inlets—Hockey Pond Stream, 20 feet wide, 2 feet deep, flowing through swampy ground, clean channel. Red Run, 8 feet wide, 1 foot deep, flowing through swampy ground, clean channel. Also fed by springs.

Outlet—Upper Tunkhannock Creek, 30 feet wide, 2 feet deep, flowing through clean rocky channel.

Utilization—Ice harvesting, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet, also D. L. & W. R. R. side track along lake.

Ownership—Mountain Ice Co. claims control.

STINK POND (See CRYSTAL LAKE)

STOCKERS POND

Location—Central Ararat Township, east central Susquehanna County, on branch of West Branch Lackawanna River, Lower North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.0 square mile.

Elevation—1955 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Irregular; oblong; maximum length 2,180 feet; maximum width 690 feet.

Area—23.2 acres.

Capacity—157 acre-feet or 51,000,000 gallons.

Depth—Prevailing 11 feet; maximum 14 feet.

Dam—Timber-crib 175 feet long, 15 feet high, with earth and stone fill; roadway on top. Plank sluiceway with provisions for flashboards, and outlet pipe provided.

Topography—Surrounded by hills reaching maximum height of approximately 50 feet. Branch line of Erie R. R. parallels one side about 15 feet above water surface. Approximately 10% of surrounding country covered with second growth timber, 90% cultivated. One dwelling, several barns and sheds near pond, 5 to 15 feet above water surface.

Inlets—Small stream, outlet from Oreonoba Lake, 15 feet wide, 1 foot deep, flowing through swampy ground, clean channel. Small stream, 10 feet wide, 1 foot deep, flows through clean channel. Outlet from Ball Pond.

Outlet—Branch of West Branch Lackawanna River, approximately 20 feet wide, 1 foot deep, flowing through clean rocky channel.

Utilization—Ice harvesting and water supply for Erie R. R., also boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; proximity of Erie R. R.

Ownership—Erie R. R. Co. owns to high water mark, not limited to shore line.

STOWELL POND

Location—East central Wilmot Township, southeastern Bradford County, on small branch of Sugar Run Creek, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 15 acres.

STULL DAM

Location—Northern Ross Township, northwestern Luzerne County, on North Branch of Bowman Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Area—Approximately 8 acres.

STULLS POND (See CHAPMANS LAKE)

STUMPY POND (See CORILLA LAKE)

SUGAR LAKE

Location—Northern Wayne Township, southeastern Crawford County, on Lake Creek, Upper Allegheny Sub-basin.

Type—Natural.

Drainage Area—Approximately 23.3 square miles.

Elevation—1248 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Circular, irregular; approximate diameter 2,200 feet.

Area—90.1 acres.

Capacity—684 acre-feet or 223,000,000 gallons.

Depth—Prevailing 10 feet; maximum 14 feet.

Dam—None.

Topography—Surrounded on all sides by rolling country rising gradually from water edge. Swampy ground completely borders, and public road parallels two sides of, lake. Approximately 60% of surrounding country covered with second growth timber and brush, 40% under cultivation. One hotel, three cottages and three oil wells near lake, 4 to 30 feet above water surface.

Inlet—Small stream, 5 feet wide, 2 feet deep, flowing through marshy ground, channel strewn with debris. Also fed by springs.

Outlet—Lake Creek, 30 feet wide, 2 to 3 feet deep, flowing through marshy ground, channel free of debris.

Utilization—Private ice supply and small summer resort.

Navigation—Rowboats.

Opportunity for Storage—Could be increased slightly, with damage to cottages on shore.

Ownership—Private control of land to water edge, limited to shore line.

SUMMIT LAKE

Location—Northeastern Newton and southwestern South Abington townships, west central Lackawanna County, on Summit Lake Creek, Lower North Branch Susquehanna Sub-basin.

Type—Originally natural.

Elevation—1381 referred to U. S. G. S. datum.

Drainage Area—Approximately 1.0 square mile.

Area—57.0 acres.

Capacity—259,000,000 gallons.

Dam—Earthen embankment and masonry wall, approximately 220 feet long and 20 feet high. Spillway of concrete.

Utilization—Water supply for Scranton and vicinity.

Ownership—Scranton Gas & Water Co., Scranton.

SUMMIT LAKE (See BONE POND)

SWAGO POND

Location—Northeastern Damascus Township, northeastern Wayne County, headwaters of Galilee Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.3 square mile.

Elevation—1285 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 1,960 feet; maximum width 1,285 feet.

Area—39.7 acres.

Capacity—827 acre-feet or 270,000,000 gallons.

Depth—Prevailing 40 feet; maximum 50 feet.

Dam—None.

Topography—Surrounding country generally low, ground rising gradually from water edge, reaching maximum height of 40 feet; all covered with second growth timber.

Inlet—Fed by springs.

Outlet—Galilee Creek, 5 feet wide, flowing through clean channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Could be slightly increased; high ground at outlet.

Ownership—Private control.

SWAMP POND

Location—Northeastern Clinton Township, west central Wayne County, on tributary of West Branch of Lackawaxen River, Upper Delaware Sub-basin.

Area—Approximately 10 acres.

TAMARACK POND

Location—Central Standing Stone Township, east central Bradford County, on tributary of North Branch Susquehanna River, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 12 acres.

TAMINENT, LAKE; old name, SECOND POND

Location—Western Lehman Township, south central Pike County, on branch of Little Bushkill Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.4 square miles.

Elevation—1120 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 3,470 feet; maximum width 1,530 feet.

Area—79.0 acres.

Capacity—980 acre-feet or 319,000,000 gallons.

Depth—Prevailing 19 feet; maximum 40 feet.

Dam—Timber-crib, 30 feet long, 2 to 3 feet high, with earth fill; dilapidated.

Topography—Steep hills rising to maximum height of 100 feet; 90% of surrounding country covered with second growth timber, 10% cultivated. Boat house and three cabins near lake, 1 to 10 feet above water surface.

Inlet—Branch of Little Bushkill Creek, 3 to 4 feet wide, 1 foot deep, flowing through marshy ground.

Outlet—Branch of Little Bushkill Creek, 4 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Arthur Lederer claims control.

TARBLE POND (See LAKESIDE POND)

TEA POND

Location—Eastern Lenox Township, south central Susquehanna County, on tributary of East Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Elevation—1229 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—11.7 acres.

TEEDYUSCONG, LAKE (See TINK POND, BIG)

TELSHOW POND

Location—West central South Canaan Township, southwestern Wayne County, on branch of Middle Creek, Upper Delaware Sub-basin.

Area—Approximately 10 acres.

THIRD POND

Location—Central Lehman Township, south central Pike County, headwaters of branch of Little Bushkill Creek, Upper Delaware Sub-basin.

Type—Natural.

Area—Approximately 5 acres.

THREE CORNERED POND, or SILKWORTH, LAKE

Location—Southwest Lehman Township, north central Luzerne County, on headwaters of branch of Hunlock Creek, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1205, referred to U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 3,000 feet; maximum width 1,750 feet.

Area—74.3 acres.

Capacity—1,087 acre-feet or 354,000,000 gallons.

Depth—Prevailing 22 feet; maximum 30 feet.

Dam—Concrete, 15 feet long, 2 feet high, with spillway.

Topography—Surrounding country rising gradually from water edge to maximum height of 100 feet on north side. Public road parallels three sides, 5 to 30 feet above water surface. Practically entire watershed covered with second growth timber. Four summer cottages and hotel near lake, 12 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Hunlock Creek, 4 feet wide, 6 inches deep, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low country around outlet.

Ownership—Several persons claim control.

THREE DOLLAR POND (See MUD PONDS)

TINGLEY LAKE

Location—Northern Harford Township, central Susquehanna County, on branch of Nine Partners Creek, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural; dam flooded small additional area.

Drainage Area—Approximately 1.4 square miles.

Elevation—1495 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Elliptical, fairly regular; maximum length 2,690 feet; maximum width 1,160 feet.

Area—42.3 acres.

Capacity—1,041 acre-feet or 339,000,000 gallons.

Depth—Prevailing 37 feet; maximum 47 feet.

Dam—Vertical dry stone wall, about 30 feet long, 6 feet wide, backed with earth and stone fill. Spillway provided.

Topography—Hills on all sides rising gradually to maximum height of 150 feet. About 30% of surrounding country sparsely covered with second growth and virgin timber, 70% cultivated. Two summer cottages and six farm houses near lake, 5 to 25 feet above water surface.

Inlets—Several small streams, dry in summer months. Fed by springs.

Outlet—Branch of Nine Partners Creek, approximately 6 feet wide, 1 foot deep, flowing through clean rocky channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None.

Ownership—Private control, not limited to shore line.

TINK POND, BIG; also called TEEDYUSCONG, LAKE

Location—Northern Lackawaxen Township, north central Pike County, on Tink Brook, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.7 square mile.

Elevation—1243 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, irregular; maximum length 4,190 feet; maximum width 1,555 feet.

Area—80.0 acres.

Capacity—982 acre-feet or 320,000,000 gallons.

Depth—Prevailing 18 feet; maximum 24 feet.

Dam—None.

Topography—Hills on three sides rising gradually to maximum height of 150 feet. Entire surrounding country covered with second growth timber. Ten to twelve summer cottages and several boat houses, 1 to 50 feet above water surface.

Inlet—Fed by springs.

Outlet—Tink Brook, 6 feet wide, 1 to 2 feet deep, flowing through channel with more or less debris.

Utilization—Private ice supply; private water supply for cottages and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good, high banks at outlet.

Ownership—Claimed by several persons; some claim only to shore line while others claim lake and right of entry thereon.

TRIANGULAR POND, or NUANGOLA, LAKE

Location—Northwestern Wright Township, central Luzerne County, on headwaters of Little Wapwallopen Creek, Lower North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.9 square mile.

Elevation—1210 (Bar.) referred to U. S. G. S. datum.

Shape—Triangular, very irregular; maximum length 3,500 feet; maximum width 3,250 feet.

Area—98.5 acres.

Capacity—777 acre-feet or 253,000,000 gallons.

Depth—Prevailing 13 feet; maximum 23 feet.

Dam—Vertical dry stone wall, 30 feet long, 2 feet high, backed with earth and stone fill. Spillway provided.

Topography—Hills on all sides rising rapidly to maximum height of 300 feet. Entire surrounding country covered with second growth timber. Eight boat houses and 70 cottages near lake, 1 to 40 feet above water surface.

Inlet—Fed by springs.

Outlet—Little Wapwallopen Creek, 6 feet wide, 6 inches deep, flowing through marshy ground, channel strewn with debris.

Utilization—Private ice supply and summer resort.

Navigation—Motor boats and rowboats.

Opportunity for Storage—None; low and marshy ground around outlet.

Ownership—Private control of land surrounding lake, limited to shore line.

TRIPP LAKE

Location—Western Liberty Township, northwestern Susquehanna County, on branch of Snake Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.6 square mile.

Elevation—1621 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 1,575 feet; maximum width 980 feet.

Area—26.2 acres.

Capacity—585 acre-feet or 191,000,000 gallons.

Depth—Prevailing 33 feet; maximum 50 feet.

Dam—None.

Topography—Low, gradually rising country on three sides, reaching maximum height of 75 feet; about 60% covered with second growth timber, 40% cultivated. Four boat houses and three summer homes near lake, 1 to 50 feet above water surface.

Inlet—Fed by springs.

Outlet—Small branch of Snake Creek, 3 feet wide, 6 inches deep, flowing through gravelly channel full of debris.

Utilization—Private ice supply and summer camp for boys. Small pumping plant at water level.

Navigation—Rowboats.

Opportunity for Storage—Good, high banks at outlet.

Ownership—Several persons claim control.

TROUT LAKE

Location—Southern Jackson Township, south central Monroe County, on Pensil Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 3.0 square miles.

Elevation—888 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, irregular; maximum length 4,680 feet; maximum width 1,715 feet.

Area—89.7 acres.

Capacity—851 acre-feet or 277,000,000 gallons.

Depth—Prevailing 14 feet; maximum 18 feet.

Dam—Earth and stone embankment, 300 feet long, 30 feet high, with public roadway on crest. Masonry spillway with concrete core wall and outlet pipe regulate height of water. At upper end of lake an earth and stone dike, 300 feet long, controls head of about 4 feet.

Topography—Lake lies between two ranges of hills rising steeply to maximum height of 60 feet. Side track of N. Y. S. & W. R. R. parallels one side for 1,800 feet to 2,000 feet, 5 feet above water surface. Roadway parallels two sides for about 3,500 feet, 5 to 10 feet above water surface. Approximately 95% of country cultivated, 5% covered with second growth timber. Ice house, five dwellings, several barns and offices near lake, 8 to 10 feet above water surface.

Inlet—Pensil Creek, 15 feet wide, 1 foot deep, flows through clean rocky and gravelly channel. Also fed by springs.

Outlet—Pensil Creek, 15 feet wide, 2 feet deep, flowing through clean rocky channel.

Utilization—Ice harvesting and private fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet and upper end of lake.

Ownership—Mountain Ice Co. claims control.

TUNKHANNOCK LAKE (See STILLWATER LAKE)

Tripp Lake, Susquehanna County
(See page 181)

Tuscarora Lake, Susquehanna County
(See page 183)

TURTLE POND

Location—Central Foster Township, southeastern Luzerne County, on Pond Creek, Middle Delaware Sub-basin.

Type—Natural.

Area—Approximately 8 acres.

TUSCARORA LAKE; old name, KINNEYS POND

Location—Southwestern Rush Township, also northwestern Auburn Township, southwestern Susquehanna County, on branch of Tuscarora Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.3 square miles.

Elevation—1234 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, triangular; irregular; maximum length 3,500 feet; maximum width 1,540 feet.

Area—68.7 acres.

Capacity—400 acre-feet or 130,000,000 gallons.

Depth—Prevailing 9 feet; maximum 18 feet.

Dam—Earth and stone embankment, approximately 200 feet long, 9 feet high.

Topography—Steep hills on three sides rising to maximum height of approximately 100 feet. Bottom of lake very muddy. Approximately 35% of country densely wooded with second growth and virgin timber, 65% under cultivation. One shed near lake 5 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Tuscarora Creek, about 6 feet wide, 6 inches deep, flowing through gravelly channel, full of debris.

Utilization—Boating and fishing. This was an old mill pond. Surface elevation varies from 2 to 3 feet during summer months.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically.

Ownership—Several persons claim entire lake and right of entry thereon.

TWELVE MILE POND (See HUNTERS RANGE LAKE)

TWIN LAKE, LOWER

Location—Eastern Preston Township, north central Wayne County, on branch of Equinunk Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1440 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Oval, irregular, maximum length 1,785 feet; maximum width 760 feet.

Area—20.7 acres.

Capacity—277 acre-feet or 90,000,000 gallons.

Depth—Prevailing 47 feet; maximum 56 feet.

Dam—Vertical dry stone wall, 150 feet long, 6 feet high, backed with earth fill. Spillway provided.

Topography—High ground on three sides rising rapidly from water edge. Greater portion of surrounding land under cultivation, the remainder covered with second growth timber.

Inlet—Branch of Equinunk Creek, 6 feet wide, flowing through rocky channel.

Outlet—Branch of Equinunk Creek, 6 feet wide, flowing through clean channel.

Utilization—Summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Private control, limited to shore line.

TWIN LAKE, UPPER

Location—Eastern Preston Township, north central Wayne County, on branch of Equinunk Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.3 square mile.

Elevation—1505 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Oval, irregular; maximum length 2,835 feet; maximum width 1,185 feet.

Area—58.8 acres.

Capacity—1330 acre-feet or 433,000,000 gallons.

Depth—Prevailing 37 feet; maximum 45 feet.

Dam—Vertical dry stone wall 75 feet long, 5 feet high, backed with earth fill; spillway in center.

Topography—High ground on three sides rising rapidly from water edge. Approximately 80% of surrounding country covered with second growth timber, 20% cultivated.

Inlet—Fed by springs.

Outlet—Branch of Equinunk Creek, 6 feet wide, flowing swiftly through rocky channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; due to low ground at outlet.

Ownership—Several private interests claim surrounding land but not the lake.

TWIN LAKES (See BRINK PONDS, BIG AND LITTLE)

TWIN LAKES, ONE OF (See ELK LAKES, BIG OR LITTLE)

TYLER LAKE

Location—Central Harford Township, central Susquehanna County, on branch of Nine Partners Creek, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural; dam caused large increase in submergence.

Drainage Area—Approximately 1.1 square miles.

Elevation—1470 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 2,480 feet; maximum width 1,480 feet.

Area—35.9 acres.

Capacity—653 acre-feet or 213,000,000 gallons.

Depth—Prevailing 25 feet; maximum 58 feet.

Dam—Stone wall, 75 feet long, 10 feet high, backed with earth and stone fill.

Topography—Surrounded by hills rising gradually to maximum height of 100 feet. Public road crosses inlet and for about 300 feet is 3 to 4 feet above water surface. Approximately 40% of surrounding country covered with second growth timber, 60% under cultivation. An ice house and dwelling near the lake, 3 to 15 feet above water surface.

Inlet—Branch of Nine Partners Creek, approximately 8 feet wide, 1 foot deep, flowing through clean gravelly channel.

Outlet—Branch of Nine Partners Creek, approximately 3 feet wide, 1 foot deep, flowing through rocky channel full of debris. The stream falls at a rate of approximately 200 feet in 1500 to 2000 feet.

Utilization—Water supply for town of Harford, private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground on east side.

Ownership—Private control of surrounding land, not limited to shore line. The water rights of lake are reserved.

UNDERWOOD, LAKE (See SEVEN MILE POND)

UNION LAKE

Location—Central Manchester Township, northeastern Wayne County, on branch of Little Equinunk Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.7 square mile.

Elevation—1415 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Circular, irregular; approximate diameter 1,200 feet.

Area—26.7 acres.

Capacity—352 acre-feet or 115,000,000 gallons.

Depth—Prevailing 24 feet; maximum 35 feet.

Dam—None.

Topography—Low ground on three sides rising to maximum height of 40 feet. Public road parallels one side. Practically entire surrounding country under cultivation. One large summer hotel near lake.

Inlet—Fed by springs.

Outlet—Branch of Little Equinunk Creek, 10 feet wide, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Union Lake Hotel Co. claims control.

UPPER LAKE

Location—Southwestern New Milford Township, central Susquehanna County, on Martin Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.9 square mile.

Elevation—1390 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, triangular, rather irregular; maximum length 2,710 feet; maximum width 1,210 feet.

Area—42.0 acres.

Capacity—549 acre-feet, or 179,000,000 gallons.

Depth—Prevailing 19 feet; maximum 30 feet.

Dam—None.

Topography—Hills on three sides rising steeply in places and reaching maximum height of 100 feet. Country around the outlet slightly marshy. Approximately 60% of surrounding country under cultivation, 40% thinly covered with second growth timber. Two cottages, one boat house and sawmill near lake, 1 to 6 feet above water surface.

Inlet—Martin Creek, about 2 feet wide, 6 inches deep, small stream practically dry during summer, flows through clean gravelly channel. Also fed by several springs.

Outlet—Martin Creek, about 10 feet wide, 2 feet deep, with clean gravelly channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around outlet, also steep banks of lake.

Ownership—Private control, not limited to shore line.

VIEW, LAKE; old names KETCHELLS POND and PANTHER LAKE

Location—East central Berlin Township, eastern Wayne County; northern Lackawaxen Township, north central Pike County, on branch of Mast Hope Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.6 square mile.

Elevation—1141 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Circular, irregular; approximate diameter 925 feet.

Area—20.2 acres.

Capacity—241 acre-feet or 79,000,000 gallons.

Depth—Prevailing 19 feet; maximum 25 feet.

Dam—None.

Topography—Ground rises gradually from water edge to maximum height of 70 feet; approximately 40% covered with second growth timber, 60% cultivated. Large summer hotel near lake, 40 to 50 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Mast Hope Creek, 10 to 12 feet wide, 1 foot deep, flowing through marshy ground.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Dam site available on outlet.

Ownership—Several persons claim control.

WALKER LAKE, BIG

Location—Central Shohola Township, northeastern Pike County, on branch of Pond Creek, Upper Delaware sub-basin.

Type—Natural.

Elevation—1204, referred to U. S. G. S. datum.

Area—17.7 acres.

WALKER LAKE, LITTLE

Location—Central Shohola Township, northeastern Pike County, on branch of Pond Creek, Upper Delaware Sub-basin.

Type—Natural.

Elevation—1222, referred to U. S. G. S. datum.

Area—Approximately 3 acres.

WALLING POND or MANATAKA, LAKE

Location—Southwestern Benton Township, northwestern Lackawanna County, on tributary of South Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.1 square miles.

Elevation—1130 (Bar.) referred to U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 2,000 feet; maximum width 890 feet.

Area—27.2 acres.

Capacity—258 acre-feet or 84,000,000 gallons.

Depth—Prevailing 19 feet; maximum 28 feet.

Dam—None.

Topography—Surrounded by steep hills which rise gradually to maximum height of 100 feet. Public road parallels one side, 1 to 20 feet above water surface. Practically entire surrounding country under cultivation. One boat house and three dwellings near lake, 1 to 10 feet above water surface.

Inlet—Small stream, 2 feet wide, 1 foot deep, flowing through clean rocky channel. Also fed by springs.

Outlet—Tributary of South Branch of Tunkhannock Creek, 5 feet wide, 1 foot deep, flowing through clean rocky channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Unseated; owner unknown.

WARREN POND

Location—Southwestern Warren Township, northeastern Bradford County, on Wappasening Creek, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 10 acres.

WATAWGO, LAKE; also called GOULDSBORO ICE POND

Location—Southwestern Lehigh Township, southwestern Wayne County, on branch of Lehigh River, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.2 square miles.

Elevation—1910 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Irregular; maximum length 3,270 feet; maximum width 2,735 feet.

Area—111.7 acres.

Capacity—293 acre-feet or 95,000,000 gallons.

Depth—Prevailing 5 feet; maximum 7 feet.

Dam—Timber-crib, 75 feet long, 9 feet high, with earth and stone fill. Timber sluiceway with gate regulation provided.

Topography—Surrounded by low ground rising gradually from water edge. Railroad track parallels one side. Surrounding country covered with second growth timber. Two large ice houses near lake.

Inlets—Branch of Lehigh River, 10 feet wide, 1 foot deep, flowing through debris-strewn channel in marshy ground. Branch of Lehigh River, 5 feet wide, 6 inches deep, flowing through debris-strewn channel in marshy ground. Also fed by springs.

Outlet—Branch of Lehigh River, 8 feet wide, 2 feet deep, flowing through rocky channel.

Utilization—Ice harvesting, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; exceedingly low ground at outlet.

Ownership—Gouldsboro Ice Co., Gouldsboro, claims entire control.

WELCOME LAKE; old name SIMS POND; also called HUNTINGDON POND, JOHN

Location—Northern Lackawaxen Township, north central Pike County, on branch of Mast Hope Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.3 square miles.

Elevation—1145 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, irregular; maximum length 2,040 feet; maximum width 1,320 feet.

Area—39.4 acres.

Capacity—548 acre-feet or 178,000,000 gallons.

Depth—Prevailing 20 feet; maximum 25 feet.

Dam—None.

Topography—Surrounding country rises gradually to maximum height of 100 feet, 90% covered with second growth timber. 10% cultivated. One boat house and one dwelling near lake, 1 foot and 25 feet above water surface.

Inlet—Branch of Mast Hope Creek, 6 feet wide, 1 foot deep, flowing through marshy ground. Also fed by springs.

Outlet—Branch of Mast Hope Creek, 12 feet wide, 1 to 2 feet deep.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good, a short distance downstream, along outlet.

Ownership—Several persons claim control.

WERNERTOWN DAM

Location—Southwestern Coolbaugh Township, northwestern Monroe County, on Tobyhanna Creek, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 29.5 square miles.

Elevation—1755 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 4,520 feet; maximum width 2,635 feet.

Area—128.5 acres.

Capacity—1,037 acre-feet or 338,000,000 gallons.

Depth—Prevailing 10 feet; maximum 20 feet.

Dam—Earth and stone embankment, 650 feet long, 18 feet high. Timber-crib, having concrete side-walls; also outlet pipe, provided for regulation of height of water.

Topography—Lake lies among hills; the country, in places, rising steeply to maximum height of 150 feet. Approximately 98% of surrounding country sparsely covered with second growth timber and brush; 2% under cultivation. Large ice house, three dwellings and several barns near lake, 8 to 10 feet above water surface.

Inlet—Tobyhanna Creek, 20 feet wide, 3 feet deep, flowing through rocky channel. Also fed by springs and several small streams which are dry in summer.

Outlet—Tobyhanna Creek, approximately 75 feet wide, 3 feet deep, flowing through clean rocky channel. Approximately 500 feet below dam is waterfall of about 30 feet.

Utilization—Ice harvesting and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; due to low ground at outlet; however, there is opportunity for small water power development in vicinity of falls.

Ownership—Lehigh Coal & Navigation Co., the Tobyhanna Creek Ice Co., and several persons own surrounding country. The lake, owever, claimed by Tobyhanna Ice Co.

WESAUKING LAKE

Location—Northwestern Wysox Township, central Bradford County, on Wysox Creek, Upper North Branch Susquehanna Sub-basin.

Type—Originally natural; dam caused slight additional submergence.

Drainage Area—Approximately 1.6 square miles.

Elevation—1260 (Bar.) referred to L. V. R. R. levels.

Shape—Oval, very irregular; maximum length 3,070 feet; maximum width 1,700 feet.

Area—67.3 acres.

Capacity—1,840 acre-feet or 600,000,000 gallons.

Depth—Prevailing 42 feet; maximum 69 feet.

Dam—Earth and stone embankment, 25 feet long 6 feet high.

Topography—Surrounding country under cultivation, rises generally to maximum height of 150 feet. Public road parallels shore, 10 to 20 feet above water surface. Four boat houses and several summer cottages, 1 to 10 feet above water surface.

Inlet—Wysox Creek, 6 feet wide, 1 foot deep, flowing through clean rocky channel.

Outlet—Wysox Creek, 6 feet wide, 1 foot deep, flowing through clean rocky channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low ground around inlet; valuable property near shore.

Ownership—Private parties own land to water edge; limited to shore line.

WESTBROOKS LAKE or LONG POND

Location—Western Blooming Grove Township, west central Pike County, on branch of Shohola Creek, Upper Delaware Sub-basin.

Type—Natural.

Area—Approximately 12 acres.

WESTCOLANG, LAKE

Location—Central Lackawaxen Township, north central Pike County, on Westcolang Creek, Upper Delaware Sub-basin.

Type—Originally natural; dam flooded large additional area.

Drainage Area—Approximately 1.5 square miles.

Elevation—1056 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long, very irregular; maximum length 7,425 feet; maximum width 2,015 feet.

Area—192.7 acres.

Capacity—2,293 acre-feet or 747,000,000 gallons.

Depth—Prevailing 17 feet; maximum 30 feet.

Dam—Timber-crib, 150 feet long, 12 feet high, with earth and stone fill. Timber spillway regulates height of water.

Topography—High ground on all sides, reaching maximum height of about 300 feet. Numerous cranberry bogs on lake; bottom very muddy, practically entire watershed covered with second growth timber. Several boat houses and summer cottages, 1 to 15 feet above water surface.

Inlet—Two small streams, 4 to 5 feet wide, 1 foot deep, flowing through swampy ground with clean channels. Also fed by springs.

Outlet—Westcolang Creek, 10 to 12 feet wide, 1 to 2 feet deep, flowing through rocky channel strewn with debris.

Utilization—Private ice supply, private water supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Could be increased, due to nature of ground surrounding outlet.

Ownership—Several persons claim control.

WESTCOTT POND

Location—Southern Benton Township, northwestern Lackawanna County, on tributary of South Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Area—Approximately 4 acres.

WEST END LAKE

Location—Northeastern Clifton Township, southeastern Lackawanna County; also western Lehigh Township, south central Wayne County, on Lehigh River, Middle Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 16.0 square miles.

Elevation—1860 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 2,150 feet; maximum width 1,620 feet.

Area—40.1 acres.

Capacity—179 acre-feet or 58,000,000 gallons.

Depth—Prevailing 6 feet; maximum 10 feet.

Dam—Timber-crib, 232 feet long, 9.5 feet high, with earth and stone fill. Timber spillway and sluiceway provided.

Topography—Hills on three sides, rising steeply in places, to maximum height 40 feet. Sidetrack of D. L. & W. R. R. parallels one side for 400 to 600 feet, 5 feet above water surface. Several small islands about 4 to 5 feet in height and one-half acre in area. About 25% of surrounding country covered with second growth timber, 75% under cultivation. Ice house, six dwellings, several barns and sheds near lake, 8 to 25 feet above water surface.

Inlet—Lehigh River, 20 feet wide, 4 to 5 feet deep, flows through clean gravelly channel.

Outlet—Lehigh River, 40 feet wide, 3 feet deep, flowing through clean rocky channel with good fall.

Utilization—Ice harvesting and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low country at outlet; also railroad and highway.

Ownership—Lehigh & Lackawanna Ice Co. claims control.

WEST SPRUCE POND

Location—Central Preston Township, northwestern Wayne County, headwaters of branch of Starrucca Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.4 square mile.

Elevation—1995 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Long and narrow, regular; maximum length 3,800 feet; maximum width 1,040 feet.

Area—63.2 acres.

Capacity—599 acre-feet or 195,000,000 gallons.

Depth—Prevailing 16 feet; maximum 20 feet.

Dam—Dry stone wall with earth fill. Abandoned.

Topography—Low ground on all sides rising gradually from water edge; country mostly under cultivation; scattered patches of second growth timber over watershed.

Inlet—Fed by springs.

Outlet—Branch of Starrucca Creek, 8 feet wide, flowing through clean channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Could be slightly increased, due to banks at outlet.

Ownership—Several persons own surrounding land; limited to shore line.

WHEIR LAKE

Location—Southern Chestnuthill Township, southwestern Monroe County, on branch of Big Creek, Middle Delaware Sub-basin.

Type—Natural.

Area—Approximately 12 acres.

WHITE LAKE

Location—East central Lower Makefield Township, east central Bucks County, on Headley Creek, Middle Delaware Sub-basin.

Area—Approximately 11 acres.

WHITE LAKE; old name LEACH LAKE

Location—Eastern Franklin Township, north central Susquehanna County, on White Run, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Elevation—2144 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—18.9 acres.

WHITE DEER LAKE

Location—Northwestern Blooming Grove Township, northwestern Pike County, on branch of Blooming Grove Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.4 square miles.

Elevation—1489 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Oval, irregular; maximum length 2,800 feet; maximum width 1,140 feet.

Area—48.3 acres.

Capacity—414 acre-feet or 135,000,000 gallons.

Depth—Prevailing 12 feet; maximum 18 feet.

Dam—None.

Topography—Hills on three sides rising gradually for most part to maximum height of 125 feet. Practically entire watershed covered with second growth timber; State Forest Reserve.

Inlet—Fed by springs.

Outlet—Branch of Blooming Grove Creek, 4 feet wide, 1 foot deep, flowing through cranberry bog for some distance.

Utilization—Boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—None; low ground at outlet.

Ownership—Commonwealth of Pennsylvania, under the jurisdiction of the Department of Forestry.

WHITEMORES POND

Location—Southwestern Greenfield Township, northeastern Lackawanna County, on Fall Brook, Lower North Branch Susquehanna Sub-basin.

Type—Artificial.

Area—Approximately 3 acres.

WHITE OAK POND

Location—Central Clinton Township, west central Wayne County, on tributary of West Branch Lackawaxen River, Upper Delaware Subbasin.

Type—Natural.

Drainage Area—Approximately 4.2 square miles.

Elevation—1370 (Bar.) referred to U. S. G. S. datum.

Shape—Circular, irregular; approximate diameter 2,620 feet.

Area—134.0 acres.

Capacity—521 acre-feet or 170,000,000 gallons.

Depth—Prevailing 6 feet; maximum 10 feet.

Dam—None at present. About 1864, vertical dry stone wall, 300 feet long, 25 feet high, backed with earth fill, was constructed. At the time of closing D. & H. Canal, dam was abandoned.

Topography—High ground on three sides rising rapidly in places and reaching maximum height of 250 feet. Swampy ground completely borders lake. Portion of lake itself is cranberry bog. Public road parallels one side, 1 to 10 feet above water surface. Practically entire surrounding country under cultivation. Two farms near the pond, 30 feet above water surface.

Inlet—Tributary of the West Branch Lackawaxen River, 6 feet wide, 1 foot deep, flowing through clean channel.

Outlet—Tributary of the West Branch Lackawaxen River, 16 feet wide, 1 foot deep, flowing through clean rocky channel.

Utilization—Private ice supply, boating and fishing. Originally used as feeder for the D. & H. Canal.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically.

Ownership—Several persons claim control.

WHITES POND

Location—Northern Auburn Township, southwestern Susquehanna County, on Little Meshoppen Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 1.0 square mile.

Elevation—1142 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow; maximum length 2,850 feet; maximum width 670 feet.

Area—31.9 acres.

Capacity—92 acre-feet or 30,000,000 gallons.

Depth—Prevailing 6 feet; maximum 8 feet.

Dam—Dry masonry wall, approximately 110 feet long, 10 feet high, backed with earth fill. Wooden sluiceway and outlet flume provided.

Topography—Pond lies between two ranges of hills, ground rising gradually in places to maximum height of 175 feet; about 30% covered with second growth timber, 70% cultivated. Slightly swampy around inlet. One dwelling and several sheds near lake, 15 to 20 feet above water surface.

Inlet—Little Meshoppen Creek, 2 feet wide, 6 inches deep, flowing through marshy ground with clean gravelly channel. Also fed by 4 or 5 large springs.

Outlet—Little Meshoppen Creek, 10 feet wide, 6 inches deep, flows through gravelly and rocky channel, full of debris.

Utilization—Private ice supply, boating and fishing; regulating pond for Meshoppen water supply. Formerly used as power for sawmill and grist mill.

Navigation—Rowboats.

Opportunity for Storage—Good; narrow valley, and steep banks at outlet.

Ownership—Abram White, claims to high water mark.

WILCOX POND, UPPER; also called KELLOW POND

Location—Central Oregon Township, central Wayne County, at headwaters of Carley Brook, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.6 square mile.

Elevation—1025 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 3,600 feet; maximum width 1,150 feet.

Area—42.7 acres.

Capacity—946 acre-feet or 308,000,000 gallons.

Depth—Prevailing 40 feet; maximum 62 feet.

Dam—None. Dam on outlet has been destroyed.

Topography—Surrounded on all sides by low land, rising to maximum height of 25 feet. Almost entire country under cultivation. One dwelling and barn on shore of pond.

Inlet—Fed by springs.

Outlet—Carley Brook, 3 feet wide, 6 inches deep, flowing swiftly through rocky channel.

Utilization—Private ice supply, boating and fishing.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—Penwarden Estate, Carley Brook, claims control.

WILDERS POND

Location—Central South Canaan Township, southwestern Wayne County, on branch of Wilders Creek, Upper Delaware Sub-basin.

Area—Approximately 5 acres.

WILDWOOD LAKE

Location—Western Susquehanna Township, southwestern Dauphin County, on Paxton Creek, Lower Main Susquehanna Sub-basin.

Type—Artificial.

Drainage Area—Approximately 18.7 square miles.

Elevation—321, referred to U. S. G. S. datum.

Shape—Long and narrow, maximum length 7,620 feet; maximum width 1,050 feet.

Area—135.3 acres.

Capacity—200,000,000 gallons.

Depth—Prevailing 3 feet.

Dam—Earthen embankment, approximately 1,300 feet long, 14 feet high; various regulating devices control height of water.

Topography—Hills on east side rise in places to maximum height of 180 feet above water surface, while ground on west side is low, rising to height of approximately 10 to 15 feet, portion of surrounding country covered with second growth timber, remainder being under cultivation.

Inlet—Paxton Creek and several small streams.

Outlet—Paxton Creek.

Utilization—Flood control of Paxton Creek, also used as public resort for boating and fishing.

Ownership—City of Harrisburg.

WILDWOOD POND

Location—Southern Lake Township, southwestern Wayne County, on Ariel Creek, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 2.6 square miles.

Elevation—1355 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Long and narrow, irregular; maximum length 3,660 feet; maximum width 985 feet.

Area—58.3 acres.

Capacity—327 acre-feet or 107,000,000 gallons.

Depth—Prevailing 10 feet; maximum 20 feet.

Dam—Timber-crib, 250 feet long, 10 feet high, with earth and stone fill. Spillway provided.

Topography—Surrounded on all sides by high ground, rising rapidly to maximum height of 60 feet; all covered with second growth timber. Two dwellings on shore near pond.

Inlet—Ariel Creek, 10 feet wide, 1 foot deep, flowing through marshy ground.

Outlet—Ariel Creek, 12 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good; steep banks at outlet.

Ownership—E. Osborn, Lake Ariel, claims control.

WILLIAM, LAKE; also called LITTLE LAKE

Location—Northern Elkland Township, northwestern Sullivan County, on headwaters of branch of Elk Creek, Lower West Branch Susquehanna Sub-basin.

Type—Natural.

Area—Approximately 10 acres.

WILLIAMS POND

Location—Northeastern Bridgewater Township, central Susquehanna County, on branch of Snake Creek, Upper North Branch Susquehanna Sub-basin.

Type—Artificial.

Elevation—1463 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—Approximately 15 acres.

WILLIAMS LAKE (See ADAMS POND)

WILLIAMS MILL POND

Location—Western Buckingham Township, north central Wayne County, on Fall Brook, Upper Delaware Sub-basin.

Type—Artificial.

Drainage Area—Approximately 6.7 square miles.

Elevation—1300 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Oval, very irregular; maximum length 1,850 feet; maximum width 825 feet.

Area—22.1 acres.

Capacity—99 acre-feet or 32,000,000 gallons.

Depth—Prevailing 10 feet; maximum 12 feet.

Dam—Vertical dry stone wall, 120 feet long, 20 feet high, backed with earth fill. Spillway provided.

Topography—Surrounding country generally low, with very little rise. Public road parallels one side. Approximately 50% of surrounding country covered with second growth timber, 50% under cultivation.

Inlet—Fall Brook, 20 feet wide, flowing through marshy ground, channel full of debris.

Outlet—Fall Brook, 20 feet wide, flowing through clean rocky channel.

Utilization—Boating, fishing, camping ground and water power for planing mill.

Navigation—Rowboats.

Opportunity for Storage—Could be slightly increased; good character of banks at outlet.

Ownership—H. A. Williams, Hancock, N. Y., claims control.

WILLIS LAKE (See RILLIE LAKE)

WINDFALL POND, or KEWAUNA, LAKE

Location—West central Benton Township, northwestern Lackawanna County, on headwaters of tributary of South Branch Tunkhannock Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.8 square mile.

Elevation—1150 (Bar.) referred to U. S. G. S. datum.

Shape—Oval, irregular, maximum length 2,170 feet; maximum width 1,040 feet.

Area—40.9 acres.

Capacity—623 acre-feet or 203,000,000 gallons.

Depth—Prevailing 26 feet; maximum 55 feet.

Dam—None.

Topography—Surrounded by steep hills rising gradually from water edge to maximum height of 100 feet. Marshy ground almost completely borders lake. Practically entire surrounding country covered with second growth timber. Near pond are five summer cottages and boat house, 1 to 10 feet above water surface.

Inlet—Fed by springs.

Outlet—Tributary of South Branch Tunkhannock Creek, 2 feet wide, 1 foot deep, flowing slowly through marshy ground.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None; low and marshy ground at outlet.

Ownership—Private control.

WINOLA, LAKE; old name, BREECHES POND

Location—Central Overfield Township, east central Wyoming County, on branch of Buttermilk Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 2.4 square miles.

Elevation—1000 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 7,225 feet, maximum width 2,600 feet.

Area—190.3 acres.

Capacity—5,713 acre-feet or 1,862,000,000 gallons.

Depth—Prevailing 54 feet; maximum 80 feet.

Dam—None.

Topography—Surrounded by steep ground, rising rapidly from water edge to maximum height of 200 feet. Public road parallels two sides, 5 to 15 feet above water surface. Approximately 50% of surrounding country covered with second growth timber, 50% cultivated. Two hotels, 40 to 50 summer cottages, 10 or 12 boat houses near lake, 1 to 50 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Buttermilk Creek, 10 feet wide, 1 foot deep, flowing through clean rocky channel.

Utilization—Private ice supply and summer resort.

Navigation—Motor boats and rowboats.

Opportunity for Storage—Could be increased; steep banks at outlet; would damage cottages and boat houses.

Ownership—Several persons claim control.

WINONA, LAKE (See ROBINSONS POND)

WINTER POND

Location—North central Cherry Ridge Township, south central Wayne County, on small branch of Lackawaxen River, Upper Delaware Sub-basin.

Area—Approximately 10 acres.

WOLF LAKE; also called FOREST LAKE

Location—Northwestern Lackawaxen Township, north central Pike County, on branch of Mast Hope Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.1 square miles.

Elevation—1272 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 4,590 feet; maximum width 2,000 feet.

Area—134.3 acres.

Capacity—1,438 acre-feet or 469,000,000 gallons.

Depth—Prevailing 17 feet; maximum 19 feet.

Dam—Earthen, 40 feet long; 2.0 feet high. Concrete spillway provided.

Topography—Surrounding country rises gradually to maximum height of 90 feet, all covered with second growth timber. Several boat houses at the water edge and club house 1,000 feet from lake, 90 feet above water surface.

Inlet—Fed by springs.

Outlet—Branch of Mast Hope Creek, 12 to 13 feet wide, 1 to 2 feet deep, flowing through marshy ground.

Utilization—Private ice supply and summer resort.

Navigation—Rowboats.

Opportunity for Storage—None, low ground around outlet.

Ownership—Forest Lake Club, not limited to shore line.

WOLF LAKE

Location—Borough of Chambersburg, central Franklin County, on Conococheague Creek, Potomac Basin.

Type—Artificial.

Elevation—595, referred to U. S. G. S. datum.

Area—16.5 acres.

WOODS POND, LOWER

Location—Central Lebanon Township, central Wayne County, on tributary of East Branch Dyberry Creek, Upper Delaware Subbasin.

Type—Artificial.

Drainage Area—Approximately 3.1 square miles.

Elevation—1510 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Irregular; maximum length 3,235 feet; maximum width 1,090 feet.

Area—57.9 acres.

Capacity—677 acre-feet or 221,000,000 gallons.

Depth—Prevailing 17 feet; maximum 29 feet.

Dam—Vertical dry stone wall, 450 feet long, 30 feet high, backed with earth and stone fill. Timber sluiceway regulates height of water.

Topography—Pond lies between two ranges of hills, country rising gradually and reaching maximum height of 100 feet; practically all covered with second growth timber.

Inlets—Two small streams, 4 feet wide, 6 inches deep, flowing through clean channels. Also fed by springs.

Outlet—Tributary of East Branch Dyberry Creek, 12 feet wide, 1 foot deep, flowing through clean rocky channel.

Utilization—Private ice supply, boating and fishing; originally used as feeder for D. & H. Canal.

Navigation—Rowboats.

Opportunity for Storage—Good, topographically.

Ownership—Reifler & Sons, Tanners Falls, claim control.

WOODS POND, UPPER

Location—North Lebanon Township, north central Wayne County, at headwaters of tributary of East Branch Dyberry Creek, Upper Delaware Sub-basin.

Type—Natural.

Drainage Area—Approximately 1.3 square miles.

Elevation—1595 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Very irregular; maximum length 2,855 feet; maximum width 1,620 feet.

Area—75.7 acres.

Capacity—1,742 acre-feet or 568,000,000 gallons.

Depth—Prevailing 43 feet; maximum 70 feet.

Dam—None.

Topography—Surrounded by rapidly rising country reaching maximum height of 40 feet; all forested with second growth timber. One cottage and an ice house on shore of pond.

Inlet—Fed by springs.

Outlet—Tributary of East Branch Dyberry Creek, 10 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Ice harvesting and summer resort.

Navigation—Rowboats.

Opportunity for Storage—Good; topographically.

Ownership—Reifler & Sons, Tanners Falls, own surrounding country, limited to shore line.

WRIGHTER POND

Location—Western Preston Township, northwestern Wayne County, on branch of Starrucca Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.7 square mile.

Elevation—1860 (Bar.) referred to N. Y. O. & W. R. R. levels.

Shape—Triangular, irregular; maximum length 3,300 feet; maximum width 2,000 feet.

Area—91.4 acres.

Capacity—1,893 acre-feet or 617,000,000 gallons.

Depth—Prevailing 36 feet; maximum 59 feet.

Dam—Vertical dry stone wall, 75 feet long, 8 feet high, backed with earth and stone fill.

Topography—Pond lies near top of hills; surrounding country generally low, rising steeply close to shore and reaching maximum height of about 40 feet; practically all cultivated. Public road parallels one side. Several cottages and farm houses with outbuildings near lake, 5 to 20 feet above water surface.

Inlet—Branch of Starrucca Creek, 6 feet wide, flowing through clean channel. Also fed by springs.

Outlet—Branch of Starrucca Creek, 8 feet wide, flowing through clean channel.

Utilization—Private ice supply and summer resort.

Navigation—Motor boats and rowboats.

Opportunity for Storage—Could be increased slightly; steep banks at outlet.

Ownership—Private control.

WYALUSING LAKE

Location—Southern Apolacon Township, northwestern Susquehanna County, on tributary of North Branch Wyalusing Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Drainage Area—Approximately 0.5 square mile.

Elevation—1447 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Shape—Triangular, irregular; maximum length 2,175 feet; maximum width 1,340 feet.

Area—42.5 acres.

Capacity—446 acre-feet or 145,000,000 gallons.

Depth—Prevailing 14 feet; maximum 23 feet.

Dam—None.

Topography—Surrounding ground mostly low, reaching maximum height on one side of approximately 60 feet; 90% covered with second growth timber, 10% cultivated. One summer cottage near lake 10 feet above water surface.

Inlet—Fed by springs.

Outlet—Tributary of North Branch Wyalusing Creek, about 10 feet wide, 1 foot deep, flowing through clean channel.

Utilization—Private ice supply and private summer camp for girls.

Navigation—Rowboats.

Opportunity for Storage—None; low country on north and west sides.

Ownership—Mrs. R. S. Newhall claims control.

YANDUS POND

Location—South central Liberty Township, south central Tioga County, on Blacks Creek, Middle West Branch Susquehanna Sub-basin.

Area—Approximately 6 acres.

YOUNGS POND

Location—Western Dimock Township, southwestern Susquehanna County, on branch of Meshoppen Creek, Upper North Branch Susquehanna Sub-basin.

Type—Natural.

Elevation—1327 (Bar.) referred to State Highway Department levels from U. S. G. S. datum.

Area—17.3 acres.

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Commonwealth of Pennsylvania

WATER SUPPLY COMMISSION OF PENNSYLVANIA

Water Resources Inventory Report

PART V

PRECIPITATION

ACT OF JULY 25, 1913

HARRISBURG, PA.
WM. STANLEY RAY, STATE PRINTER.
1916

Commonwealth of Pennsylvania

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WM. STANLEY RAY, STATE PRINTER
1916

WATER SUPPLY COMMISSION OF PENNSYLVANIA

Chairman

*JOHN BIRKINBINE, Cynwyd, Montgomery County
(Died May 14, 1915)

Vice Chairman

**BENJAMIN K. FOCHT, Lewisburg, Union County
(Resigned February 28, 1915)

Secretary

THOMAS J. LYNCH, South Bethlehem, Northampton County

Commissioner of Forestry

ROBERT S. CONKLIN, Columbia, Lancaster County

Commissioner of Health

DR. SAMUEL G. DIXON, Ardmore, Montgomery County

---

*ROBERT A. ZENTMYER, Tyrone, Blair County
(Appointed August 23, 1915, vice John Birkinbine, Deceased)

**OLIVER S. KELSEY, Flemington, Clinton County
(Appointed December 1, 1915, vice Benjamin K. Focht, Resigned)

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LETTER OF TRANSMITTAL

Office of the Water Supply Commission,
Harrisburg, September 20, 1916.

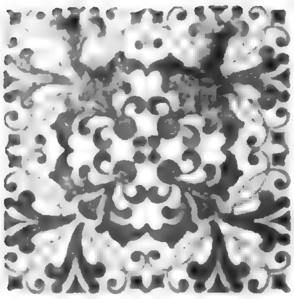
His Excellency, the Governor of the Commonwealth of Pennsylvania:

The Members of the Senate and the House of Representatives of the Commonwealth of Pennsylvania:

Gentlemen:

The Water Supply Commission of Pennsylvania respectfully submits herewith Part V of the Water Resources Inventory Report, entitled "Precipitation," which contains information relating to every known precipitation station in Pennsylvania.

THE WATER SUPPLY COMMISSION OF PENNSYLVANIA,
THOMAS J. LYNCH,
Secretary.



PART V

PRECIPITATION

INTRODUCTION

Precipitation data are valuable in investigating water resources and their utilization, and where direct measurements of flow are lacking, precipitation records furnish an alternative basis for estimating stream discharges. In the arid and semi-arid regions of the United States, and especially where the unevaporated rainfall goes chiefly to underground reservoirs, it is difficult to trace relationships between precipitation and run-off; but climatic conditions in Pennsylvania permit practical use of precipitation records.

Such information is of value in studies of water supply, which include the dependable minimum flow of water and the possibilities of supplementing the low discharge with stored water. It affords data for determining the necessary dimensions of spillways and of capacities of storage dams and the quantity and distribution of water available for power development. The study of the frequency and magnitude of floods is largely based upon precipitation data, and the regulation and improvement of navigation is also related to it. In fact, few utilizations of water resources can be intelligently effected without reference, direct or otherwise, to precipitation data.

Much has been done in recent years in the establishment of both stream gaging and precipitation stations in this state, and a large amount of information is being obtained. Of the 154 precipitation stations now maintained in Pennsylvania, 29 have records extending over 30 years or more, while 57 stations have records covering 25 years or more; whereas the record of only 3 of the 94 stream gaging stations in the state extend over 25 years. Three gaging stations, now discontinued, also have records extending over 25 years. Of the two classes of data the precipitation records are not only more numerous but they also cover longer periods. The importance of stream gaging has not been appreciated until recent years, and was publicly instituted in 1893*, when the United States Geological Survey undertook it systematically. Gage heights were previously observed in a few cases in the interest of navigation and in flood prediction, and it has been possible sometimes to correlate records of this class with recent discharge measurements, and thus obtain extended records of value.

The disposition of precipitation embraces:

1. *EVAPORATION* from the water and soil areas, from artificial surfaces and from vegetation.
2. *TRANSPIRATION,* the passage of water from the roots to the stems and foliage of plants and thence to the atmosphere; including the comparatively small amount taken up to become part of the vegetable structure.
3. *SURFACE RUN-OFF* which passes over the surface into streams without entering the soil.
4. *SEEPAGE RUN-OFF,* that portion sinking into the earth and later reappearing at lower elevations. This water escapes from the drainage basin through the stream channels.
5. *DEEP SEEPAGE* which sinks into the soil and rock to such depths that it may not reappear later on the surface of the same drainage basin.

The proportionate influence of these factors depends upon—the amount and intensity of the precipitation; the topography, geology and location of the drainage area; the season; the temperature; quantity and character of previous precipitations and temperatures; condition of the soil and of the vegetation; quantity of snow on the ground and its water content; the amount and character of natural and artificial storage; type of stream beds; proportion of sunshine; humidity of the air; the direction and nature of winds, and other influences which must all be considered in computing run-off from precipitation data. The relation of run-off to rainfall is complicated, but the irregularities are understood when the relative values of the different factors are recognized. In general, the water falling upon a watershed reaches the streams except as disposed of by evaporation. transpiration and deep seepage; but calculation of the run-off from precipitations is so variable a problem that generalizations are questionable.

A special problem of run-off is presented in the forecasting of floods, and rainfall affords the earliest presentment of their imminence; so that reports from precipitation stations has enabled ap-

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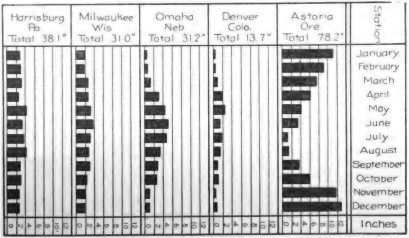
*Several years previous to this discharge measurements had been made by the United States Geological Survey in connection with irrigation studies in the west.

FIGURE I



Distribution of Rainfall at Various Points throughout the United States proximate gage heights at important centers to be predicted in sufficient time to minimize damage, this alone offering sufficient justification for maintaining systems of precipitation stations.

Precipitation records are not precise scientific data and are subject to many inaccuracies. Aside from personal errors in observing and recording, failure to secure proper exposure of the rain gage is a prolific source of error. Proximity to buildings, fences and trees, which deflect the air currents during a rainstorm, constitutes a common defect, and gages too near the surface receive splashings during hard rains. Rain gages are unsuited for reckoning snowfall, which must be measured by depth on an area unaffected by wind and by radiation, and the water content determined. The number of stations is generally insufficient to give definite indications for a particular watershed, while necessary reliance upon voluntary observers has resulted in locations not thoroughly representative. The majority of rain gages are in or near towns, in valleys, and in improved localities. Information from highlands and unsettled localities is therefore meagre, and the precipitation upon such districts is often materially different than upon the lowlands. Short time records may be misleading, for the occurrence of local rains often gives a distorted record, but irregularities from this source are reduced as the length of record increases.

It is therefore important to increase the number of stations, to improve their selection, and, where possible, to secure more competent observers. It is especially desirable to establish stations in outlying districts and on higher ground. Advantageous locations are on the divides between drainage areas, as the record thus contributes to the study of each basin. Where practicable, it is desirable to eliminate human fallibility by installing automatic recording gages which will also furnish valuable data upon the rates of intensity of rainfall. Such information is for many purposes more important than total precipitation, but is at present all too meagre. The catchment area of a rain gage is so minute compared to even a small drainage area, and the irregularities of quantity, rate, distribution and extent of precipitation so marked, that each additional measuring station is of material advantage.

DISTRIBUTION OF RAINFALL

There are wide differences in the annual rainfall in various parts of the United States. In western Washington and Oregon the average annual precipitation varies between 70 and 125 inches; while at Yuma, Arizona, the mean for 35 years is 3.1 inches. Pueblo, Colorado, has an annual rate of about 12 inches; while that at Mobile, Ala., is at the rate of 62 inches. The mean annual rate of the country as a whole was determined in 1908 for the United States Conservation Commission as 29.4 inches.

The average annual precipitation for Pennsylvania, determined in 1908, was 41.7 inches, compared with 47.7 inches for New Jersey; 44.0 inches for Maryland; 42.5 inches for West Virginia; 38.4 inches for Ohio, and a range of 27 to 48.5 inches for New York. The precipitation for Pennsylvania, as well as of its neighboring states, is high when compared with the country as a whole. This is because the east and west boundaries are contiguous to the ocean and the Great Lakes, also the state lies in the path of cyclonic storms from these regions and from the south, while many thunderstorms produce high total of rain for the hot season.

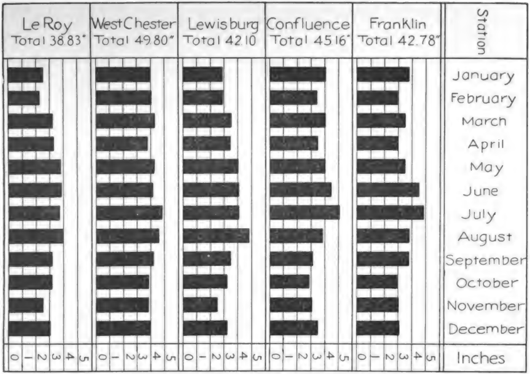
Of equal interest is the seasonal distribution of precipitation, i. e., the manner in which it varies throughout the year. Without analyzing the causes of difference, reference is made to Figure I, which shows typical distribution in various parts of the country. The precipitation in Pennsylvania, as represented in a general way by Harrisburg, is remarkably uniform in its average distribution through the year; although individual records show wide variations from the monthly normals. Less irregularity is exhibited in run-off, due chiefly to high evaporation and absorption by vegetation during the warm season and to gradual melting of snows. Figure II shows the even average seasonal distribution of precipitation at several locations in Pennsylvania.

The geographical distribution of rainfall over Pennsylvania is shown graphically on Figure III, the data for which are given in Table V. This map shows zones bounded by isohyetals plotted with reference to the recorded annual means of the stations. In the thickly settled portions, where stations are comparatively numerous, the isohyetals are believed to be fairly accurate, but over the northern and central regions of the state, the map is less reliable.

The map shows the prevalence of an annual rate of 40 to 45 inches for about one-half of the state. A lower rate is observed in the northern central counties, in the Pittsburgh district, along Lake Erie, in a portion of Center and Blair counties, and the Cumberland Valley; while a higher rate is found in the central portion of the eastern section, and in Cambria, Somerset and adjoining counties.

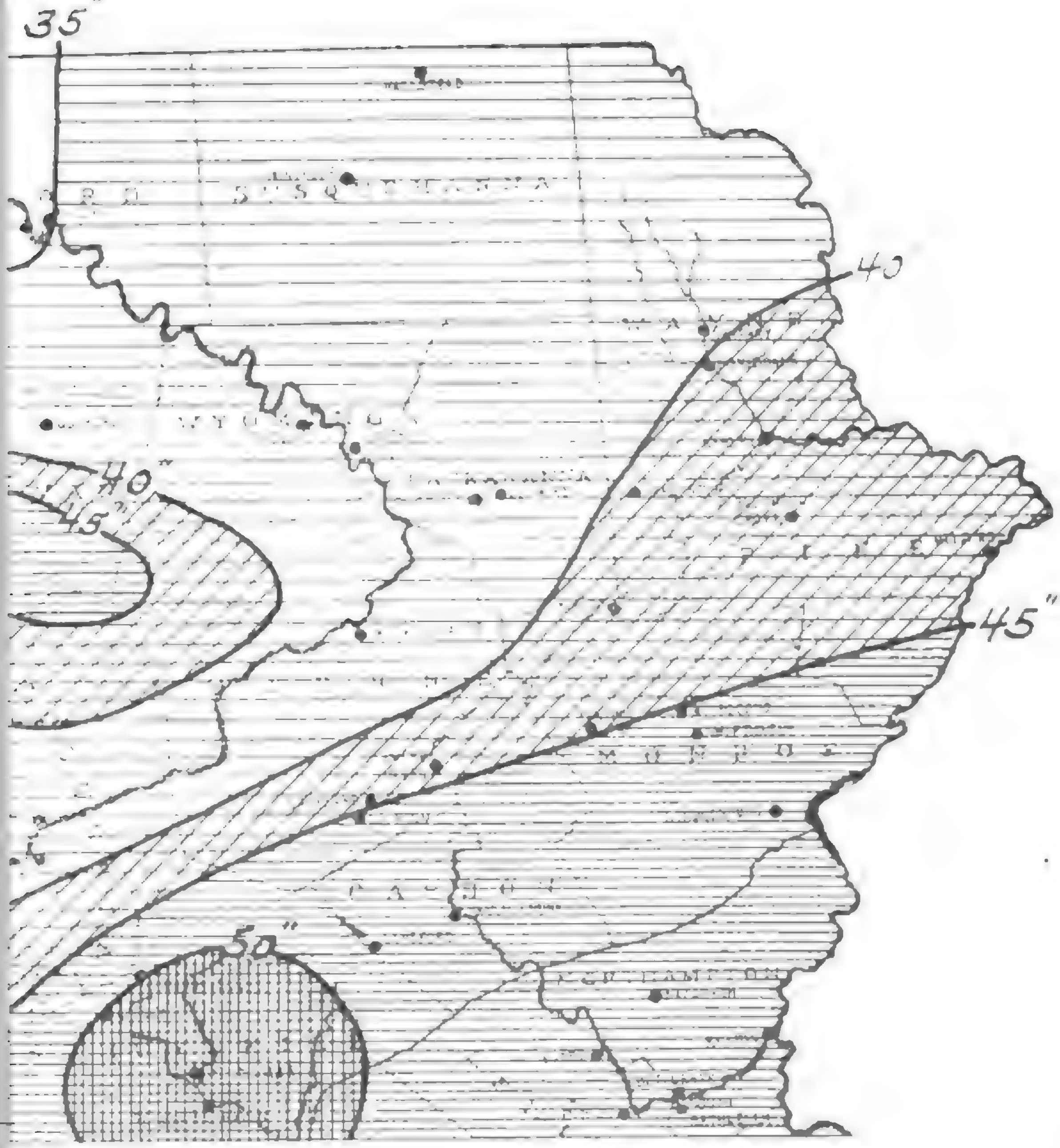
The influence of topography and geographical position is marked in the above distribution. In general it may be said that precipitation from moisture laden winds increases as they rise along a moun-

FIGURE II



Distribution of Rainfall at Various Points in Pennsylvania

Google


35"
SUSQUEHANNA
40
40"
45
45"
MONROE
50"

tain slope, with a corresponding decrease when they pass down the opposite slope after crossing the divide. This is well illustrated in the eastern half of Pennsylvania, where the precipitation from east and southeast winds increases to a maximum over the headwaters of the Schuylkill, while on the north side of the range there is a marked decrease.

The indicated deficiency in the lower Susquehanna Valley probably does not exist in reality, but rather is due to the conditions under which the precipitation records were made.

In the western half of the state the problem is more complex, but when it is remembered that the winds from the Lake region are mostly descending currents from out of areas of high barometer, it will readily be understood why they carry less moisture than the west and southwest winds from the drier region of the great central valleys. The precipitation from the west and southwest winds increases to a maximum in Somerset and southern Cambria counties, and decreases on the eastern side of the ridge in Bedford and Huntingdon counties. The small areas of maximum and minimum precipitation in the northwestern quadrant of the state can be partly accounted for by the topography, but may not exist to such a marked extent as is indicated by the available records for those sections.

The seasonal distribution of precipitation is highly favorable, as compared with some of the other states, and the records show a remarkable uniformity from year to year.

This uniformity is chiefly responsible for the small development of irrigation in Pennsylvania, where such use of water is restricted to occasional small scale operations. There is, however, sentiment in favor of irrigation methods to prevent the effects of occasional droughts, and even under normal conditions, the application of stored water to the crops in the growing season would augment the yield. This question offers a fruitful field for investigation.

EXCESSIVE PRECIPITATION

Excessive precipitation may occur either as a prolonged period at moderate rates, or in the form of torrential rains, commonly known as "cloudbursts."

The first condition occurs most frequently during the warm season, from April to November inclusive, as the moisture capacity of the atmosphere is greatly reduced by the low temperatures of winter.

However, March is quite prolific of such rains, and while the actual amounts of rainfall are usually less than those of the warmer months, the effects are often more disastrous on account of the supplementary effect of melting snows. The continuity of these rains is sometimes caused by the passage in rapid succession of several cyclonic disturbances, and sometimes by the stagnation of a disturbance, and especially one of a long or troughlike formation. The great Ohio floods of March 1913 were caused by the latter condition, and the excessive rains covered the greater portion of the state. In this type the excessive rains usually cover a considerable area.

"Cloudbursts" are more or less local in extent and are generally accompanied by severe thunderstorms or tornadoes. They may last a few minutes or a few hours, but their character precludes their continuance over an extended period.

Data for the first type are practically complete in the daily precipitation records, but for the second type they are meagre owing to the fact that observers so often fail to record the exact duration of the storm, and to the further fact that automatic recording rain gages are necessary to procure the progressive rate of the rainfall.

Public attention is called to the importance of securing the rate of rainfall when these storms occur, and of reporting it to the office of the Commission, which is collecting all available data. Existing records afford some striking examples of high precipitation, both over long and short periods.

The great floods of 1889 and 1894 were produced by heavy general rainfall which was measured at a number of stations. The precipitation at these points is shown in Tables I and II, the maximum amount for 24 hours being given. The heavy rainfall extended over large areas of the state, and produced phenomenal rises in the streams. The recorded rainfall of the 1889 flood varied from 3.03 to 8.37 inches in 24 hours at 21 stations located in 17 counties, and in 1894 amounts varying from 3.00 to 9.03 inches were reported from 29 stations in 17 counties. The relation of the rainfall to these floods is discussed in Part VIII on Floods, and these data are submitted here merely in illustration of the type of precipitation.

TABLE I. *Flood of 1889—Maximum Rainfall in 24 Hours*

Station.	County.	Date.	Rainfall.
			Inches.
Altoona,	Blair,	May 31,	3.03
Blue Knob,	Blair,	May 30-31,	7.90
Charlesville,	Bedford,	May 31,	6.71
Coudersport,	Potter,	May 31,	5.40
Eagles Mere,	Sullivan,	May 31,	5.17
Emporium,	Cameron,	May 31,	5.85
Girardville,	Schuylkill,	June 1,	3.05
Grampian,	Clearfield,	May 31,	8.37
Harrisburg,	Dauphin,	May 31,	6.16
Hollidaysburg,	Blair,	May 31,	5.12
Huntingdon,	Huntingdon,	May 31,	4.22
Kilmer,	Juniata,	May 30-31,	5.81
McConnellsburg,	Fulton,	May 31,	7.08
New Bloomfield,	Perry,	May 31,	3.70
Petersburg,	Huntingdon,	May 31,	6.60
Philipsburg,	Center,	June 1,	8.26
Selinsgrove,	Snyder,	May 31,	6.00
Smethport,	McKean,	May 31,	5.50
Somerset,	Somerset,	May 31,	4.43
Tipton,	Blair,	May 31,	3.35
Wellsboro,	Tioga,	June 1,	7.46

Note.—Only totals above 3 inches are included.

TABLE II. *Flood of 1894—Maximum Rainfall in 24 Hours*

Station.	County.	Date.	Rainfall.
			Inches.
Altoona,	Blair,	May 20,	3.64
Brower's Lock,	Montgomery,	May 21,	4.42
Cassandra,	Cambria,	May 19,	3.00
		May 21,	4.13
Coopersburg,	Lehigh,	May 20-21,	7.12
Doylestown,	Bucks,	May 21,	3.97
East Mauch Chunk,	Carbon,	May 20-21,	8.66
Forks of Neshaminy,	Bucks,	May 21,	5.41
Girardville,	Schuylkill,	May 20-21,	5.76
Grampian,	Clearfield,	May 19,	3.14
Hamburg,	Berks,	May 20-21,	5.07
Hollidaysburg,	Blair,	May 19,	3.00
Kennett Square	Chester,	May 20-21,	7.30
Lansdale,	Montgomery,	May 20-21,	7.40
Lebanon,	Lebanon,	May 20-21,	4.64
Ottsville,	Bucks,	May 21,	5.48
Philadelphia,	Philadelphia,	May 20-21,	4.53
Phoenixville,	Chester,	May 21,	4.47
Point Pleasant,	Bucks,	May 21,	4.85
Quakertown,	Bucks,	May 20-21,	5.94
Reading,	Berks,	May 20-21,	7.85
Seisholtzville,	Berks,	May 20-21,	7.39
Selinsgrove,	Snyder,	May 20-21,	3.39
Smethport,	McKean,	May 18,	3.25
Smiths Corners,	Bucks,	May 21,	5.64
Somerset,	Somerset,	May 18-19,	6.90
Warren,	Warren,	May 17,	3.20
Wellsboro,	Tioga,	May 18,	3.13
West Chester,	Chester,	May 20-21,	9.03
Westtown,	Chester,	May 20-21,	7.87

Note.—Only totals above 3 inches are included.

Torrential rains are distinguished by high intensity and short duration, and are most satisfactorily measured by automatic recording gages, of which there are unfortunately only six in service in the state, viz.: at Philadelphia, Scranton, Harrisburg, Reading, Pittsburgh and Erie. The Weather Bureau publishes rates of rainfall at these stations which exceed 0.25 inch in any five minutes and 0.80 inch in one hour. Such rates occur sometimes during general storms as well as in torrential rains.

The records of the Weather Bureau have been examined to determine the frequency with which various rates have occurred at these stations, and Table III has been prepared to show the number of times that a given rate of rainfall has occurred or has been exceeded within the period 1903 to 1915 inclusive. For instance, at Philadelphia there were 23 intervals of ten minutes in each of which 0.50 inch or more rain fell, although in several cases two such intervals were in the same storm. High intensities were more prevalent at Philadelphia than at the other stations. The heaviest rate is also reported from Philadelphia, on August 3, 1898, when 0.60 inch fell in 5 minutes, 2.06 inches in 30 minutes, 3.58 inches in one hour and 5.48 inches in 2 hours.

Among recent severe storms recorded are 7.50 inches in 3 hours, 50 minutes at Stroudsburg on August 1, 1913, 7.42 inches of which fell in 3 hours and 20 minutes, and 5.00 inches in 2 hours at Lebanon on July 10, 1914. There is also record of an unusual rain in Philadelphia on September 12, 1862, which was measured at three locations in the city, showing 3.60, 6.00 and 9.00 inches in less than 5 hours, between 6 and 11 p. m. The records of the U. S. Signal Service note the most severe downpour measured in the state, on August 5, 1843, when Brandywine Hundred received 10 inches in 2 hours, Concord had 16 inches in 3 hours, and at Newtown there fell 13 inches in 3 hours, of which 5.5 inches occurred in 40 minutes.

Inspection of the excessive precipitation records shows that nearly all the heavy rates occur between May and October inclusive. Moreover, the maximum monthly aggregates, as shown in Table V, are also in the summer and autumn months. The predominance of high intensities and maximum monthly totals in this season is directly traceable to the greater moisture capacity of the air in warm weather, which produces many electrical storms, especially heat thunderstorms, as well as heavy condensation when cooler air strata are admixed.

TABLE III. *Frequency of Excessive Rates of Rainfall at Weather Bureau Automatic Gages (January 1903 to December 1915)*

Rate.	Philadelphia.	Scranton.	Harrisburg.	*Reading.	Pittsburgh.	Erie.
0.5 inch in 10 min.,	23	9	12	4	8	[illegible]
1 inch in 20 min.,	17	....	3	....	2	[illegible]
1 inch in 30 min.,	15	4	9	....	4	[illegible]
2 inches in 30 min.,	1	....	1	....	....	....
1 inch in 1 hr.,	18	10	16	5	7	[illegible]
2 inches in 1 hr.,	2	1	2	....	....	....

*Reading record began December 1, 1912.

DEFICIENT PRECIPITATION

Authentic records of droughts are scarce and conflicting, the principal reason being that the beginning of the period is not well marked and it is viewed from the effect upon vegetation and water yield. The Water Supply Commission has been obtaining data upon droughts and is continuing this work, the subject being discussed in the Annual Report of the Commission for 1908.

Noteworthy droughts visited this state in the years 1876, 1881, 1887, 1895, 1900, 1904, 1908, 1909 and 1914, and each was accompanied by loss and inconvenience to the population and to industry over most of the state, while stream flow became restricted and water supplies diminished. It may seem that droughts are increasing in frequency, but increased development and congestion of population make the deficiencies more widely felt.

Droughts usually occur during the summer and fall when high temperatures and evaporation increase desiccation, and when little of the rainfall enters into the ground. In this state they reach their most acute stage in autumn when precipitation deficiencies continue until the ground and stored waters have been drawn upon.

PRECIPITATION RECORDS IN PENNSYLVANIA

The earliest available rainfall records in Pennsylvania were taken in 1798, but the first general series was begun in 1887 under direction of the Franklin Institute, by authority of the Pennsylvania Legislature, which made appropriations for the exepenses, the United States Weather Bureau detailing officers to assist in the work. Under the Act of 1889, the State Department of Internal Affairs commissioned the local observers and paid the bills certified by the Franklin Institute. The report of the Secretary of Internal Affairs for 1895 published the climatological data for Pennsylvania to that date. The work has since been conducted chiefly by the United States Weather Bureau; the endeavor being to locate and maintain an observation station in each county. This has not been possible, as the observers are voluntary, and not all can be depended upon to keep accurate and continuous records. The Philadelphia Bureau of Water maintained a number of rain gages in the valleys of the Delaware and Schuylkill rivers, some of the records covering over 25 years. Other records have been kept by the United States Army Engineer Corps, municipal water departments, private water companies, canal companies, educational institutions, hospitals and individuals. Twenty stations have recently been established by the Water Supply Commission, some for the study of local problems, while others add to the knowledge of general conditions over the state. Three of these stations were discontinued in August 1915.

As far as possible all records have been collected by this Commission for study and comparison and those which seem trustworthy and of value are presented herewith. Out of a total of 364 different records obtained, 97 have been discarded as of doubtful value or of too short duration. Many records, though taken at important points, were so fragmentary as to render them comparatively valueless, while records at points of far less importance in determining the water supply have been maintained for many years. Such conditions naturally exist under the present system of employing voluntary observers and a station of great value is liable at any time to be discontinued for similar reasons.

CHARACTER OF PENNSYLVANIA RECORDS

As to the reliability of rainfall records, a quotation is presented from a paper entitled "The Mean or Average Annual Rainfall and the Fluctuations to Which it is Subjected."* Based upon the assumption that care has been exercised in taking the records, "any good record of 35 years and upwards may be accepted within limits, and a record of 50 years is nearly as good as that of a longer period," also, "the conclusion may be drawn that dependence can be placed on any good record of 35 years duration, to give the mean rainfall correct within 2 per cent of the truth; and that for shorter periods of 5, 10 or 15 years, the probable extreme deviation from the mean would be 15, 8.25 and 4.75 per cent respectively." This is a general conclusion made two decades ago, since which time more long time records have become available. The ratios given will be modified by geographical location and the character and extent of climatic cycles included in the period; they offer, however, a typical index. More than a score of Pennsylvania records cover 30 years and over, giving considerable first class data.

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*Alexander R. Binnie (Proceedings for 1896 of the Institute of Civil Engineers, London, Vol. 10 p. 89.)

Heretofore, precipitation stations in this state have not been located as a basis for the determination of stream flow, for the Franklin Institute and the United States Weather Bureau have employed a geographical basis for agricultural and general scientific purposes. Individual and local problems have been responsible for the measurement of rainfall at certain points to determine run-off, such as the water supply problem of Philadelphia and other cities, but this method has never been applied to the state as a whole.

TABLES OF PRECIPITATION

Two tables are presented summarizing the precipitation data in Pennsylvania. In Table IV all the stations of which the Commission has any record are listed, together with the elevation of the station, when known, and the length of record. Table V gives the monthly and annual precipitation at all stations whose records are deemed to be valuable. These records are given to the end of 1915, and have been furnished through the courtesy of the United States Weather Bureau, unless otherwise noted. The mean annual precipitation given at any station is the sum of the monthly means in every case. Where a letter is given before any monthly figure, it denotes the number of days missing in that month; i. e. a-1 day, b-2 days, c-3 days, etc. In both tables the stations are classified alphabetically.

TABLE IV. *Rainfall Stations in Pennsylvania*

(Stations in italics not considered reliable, but are on file in the office of the Commission)

Station.	County.	Elevation above mean sea level.	Term of Record.
		Feet.	
Aleppo,	Greene,	......	Dec. 1900-Dec. 1915.
Allegheny City,	*Allegheny,*	......	*Dec. 1871-Aug. 1873.*
Allentown,	Lehigh,	......	Dec. 1911-Dec. 1915.
Altoona,	Blair,	......	Oct. 1884-Dec. 1915. (Portion of early record incomplete).
Ansonia,	Tioga,	......	Oct. 1908-Dec. 1915.
Aqueduct (Logania),	Perry,	361	Feb. 1889-April 1900; June 1902.
Ashland,	*Schuylkill,*	*1,005*	*Feb. 1870-May 1870,*

TABLE IV. *Rainfall Stations in Pennsylvania—Continued*

Station.	County.	Elevation above mean sea level.	Term of Record.
		Feet.	
Athens,	Bradford,	768	March 1898-Feb. 1904.
Austin,	Potter,	......	July 1910-April 1911; Oct. 1912-Dec. 1915.
Arondell,	*Perry,*	*515*	*June 1867-April 1869.*
Baldwin,	Butler,	......	Feb. 1906-Dec. 1915.
Bear Gap,	Northumberland,	......	Jan. 1898-Dec. 1915.
Beaver,	*Beaver,*	......	*Aug. 1888-Oct. 1888.*
Beaver Dam,	Beaver,	......	July 1893-Dec. 1915.
Beaver Falls,	Beaver,	......	Nov. 1908-Dec. 1915.
Beaver Seminary,	*Beaver,*	......	*April 1840-Aug. 1841; Oct. 1867-Dec. 1870. (Record incomplete).*
Bedford,	*Bedford,*	......	*Jan. 1853-Dec. 1861; Jan. 1877-Feb. 1877. (Record incomplete).*
Bellefonte,	Center,	......	Oct. 1900-April 1912; Oct. 1915-Dec. 1915.
Bernice,	*Sullivan,*	......	*June 1888-Sept. 1888.*
Berwick,	*Columbia,*	*583*	*June 1859-Jan. 1865. (Record incomplete).*
Bethlehem,	Northampton,	1,200	July 1877-Aug. 1903; Feb. 1910-Dec. 1915. (Portion of record incomplete).
Blooming Grove,	Pike,	1,000	May 1885-Sept. 1897.
Bloomsburg,	Columbia,	......	Dec. 1892-Aug. 1894.
Bloserville,	Cumberland,	......	Jan. 1912-Dec. 1915.
Blue Knob,	Blair,	2,560	April 1889-Dec. 1894.
Boothwyn,	*Delaware,*	......	*June 1891.*
Bradford,	McKean,	......	Jan. 1910-June 1911.
Brookville,	Jefferson,	......	Jan. 1885-March 1906; Nov. 1910-Dec. 1915. (Portion of 1888 and 1914 incomplete).
Browers Lock,	Montgomery,	......	Jan. 1880-Dec. 1915.
Brownsville,	*Fayette,*	......	*Jan. 1870-March 1870; April 1873-Nov. 1885. (Record incomplete).*
Bustleton,	*Philadelphia,*	......	*Jan. 1854.*
Butler,	Butler,	......	Feb. 1899-Oct. 1901; Jan. 1903-Dec. 1903.
Byberry,	*Philadelphia,*	*70*	*Jan. 1854-Nov. 1854; April 1858; Jan. 1860-Dec. 1863. (Early record incomplete).*
California,	Washington,	......	Oct. 1901-Dec. 1915. (Record incomplete).
Cameron,	Cameron,	964	Jan. 1896-April 1899.
Camp Cadwallader,	*Fayette,*	......	*Dec. 1865.*
Canonsburg,	Washington,	936	March 1840-Oct. 1840; April 1844-March 1845; Jan. 1856-Dec. 1859; Jan. 1861-June 1878; Aug. 1889-Nov. 189[illegible] (Portion of record incomplete).
Carlisle Barracks,	*Cumberland,*	*500*	*April 1848-Dec. 1874. (Portion of record incomplete).*
Carlisle,	Cumberland,	480	Jan. 1839-Dec. 1841; Dec. 1855-Sept. 1859; Dec. 18[illegible]-Nov. 1878; Jan. 1888-April 1901. (Early record incomplete).
Carpenters,	*Lycoming,*	......	*Aug. 1862-Sept. 1862.*
Cassandra,	Cambria,	......	April 1894-Dec. 1907.
Catawissa,	Columbia,	......	March 1878-Jan. 1891; July 1909-Dec. 1915.
Cense Mills,	Luzerne,	1,062	Jan. 1910-Dec. 1915.
Cedar Run,	Lycoming,	760	Jan. 1896-May 1900.
Center Hall,	Center,	......	Jan. 1895-Dec. 1915.
Center Valley,	*Lehigh,*	......	*Oct. 1889-April 1890.*
Ceres,	*McKean,*	*1,440*	*Jan. 1854-March 1854.*
Chambersburg,	Franklin,	......	Feb. 1860-April 1862; May 1875-Dec. 1886; Nov. 18[illegible]-Feb. 1891; March 18[illegible]-April 1901; Sept. 1914-Dec. 1915. (Record incomplete).
Charlesville,	Bedford,	......	Jan. 1888-Sept. 1891.

TABLE IV. *Rainfall Stations in Pennsylvania—Continued*

Station.	County.	Elevation above mean sea level.	Term of Record.
		Feet.	
Cheat Haven,	Fayette,		Dec. 1913-March 1915.
Chester,	*Delaware,*		*Dec. 1863-April 1864.*
Chromedale,	Delaware,	196	Dec. 1848-March 1858; Sept. 1858-Jan. 1859.
Claridge,	Westmoreland,	1,080	Aug. 1914-Aug. 1915.
Clarion,	Clarion,		Jan. 1888-Nov. 1895; Nov. 1901-Dec. 1915. (1888 and 1909 incomplete).
Claysville,	Washington,		April 1904-Dec. 1915.
Clearfield,	Clearfield,		Jan. 1905-Dec. 1915.
Cloe,	Jefferson,	1,115	Dec. 1913-Dec. 1915.
Coatesville,	Chester,		March 1888-Dec. 1915.
Coke Plant, Cambria Steel Co.,	Cambria,		See Franklin, Cambria Co.
Columbus,	Warren,		See Corry.
Confluence,	Somerset,	1,332	Jan. 1875-Dec. 1915.
Coopersburg,	Lehigh,		Dec. 1889-Dec. 1900.
Coraopolis,	Allegheny,	720	Jan. 1907-Dec. 1915. (1907 incomplete).
Corry,	Erie,		Jan. 1886-June 1893; Nov. 1915-Dec. 1915.
Coudersport,	Potter,		June 1888-March 1890; March 1903-Sept. 1905. (Record incomplete).
Creekside,	Indiana,	1,105	Dec. 1913-Dec. 1915.
Cresson,	Cambria,	2,215	Nov. 1913-Dec. 1915.
Danville,	*Montour,*		*Feb. and Oct. 1839.*
Davis Island Dam,	Allegheny,	720	Jan. 1891-Dec. 1915.
Derry Station,	Westmoreland,		Oct. 1896-Dec. 1915.
Dillingersville,	*Lehigh,*		*Jan. 1886.*
Doylestown,	Bucks,		Jan. 1889-Dec. 1899; Jan. 1901-Dec. 1915. (1899 and 1914 incomplete).
Drifton,	Luzerne,		Jan. 1884-Sept. 1898; Jan. 1901-July 1902; Jan. 1907-Dec. 1915. (Record incomplete).
Driftwood,	Cameron,	816	Jan. 1896-Dec. 1902.
DuBois,	Clearfield,		Dec. 1890-Sept. 1897.
Dunbar,	*Fayette,*		*Jan. 1874-July 1875.*
Duncannon,	Perry,		May 1895-Aug. 1902.
Dunmore,	*Lackawanna,*		*Jan. 1897-July 1897.*
Dushore,	Sullivan,		Feb. 1897-Sept. 1909. (Portion of record incomplete).
Dyberry,	Wayne,	1,100	Jan. 1866-March 1903. (Record incomplete).
Eagles Mere,	Sullivan,	2,060	Jan. 1888-May 1891; Jan. 1893; Dec. 1913-Dec. 1915.
East Bloomsburg,	Columbia,		Jan. 1896-Dec. 1904.
East Mauch Chunk,	Carbon,	550	See Mauch Chunk.
Easton,	Northampton,	325	Feb. 1856-Dec. 1859; Jan. 1883-Oct. 1909.
Eatonville,	*Wyoming,*		*Jan. 1908-Sept. 1908.*
Ebensburg,	*Cambria,*		*Feb. 1840-Dec. 1841. (Record incomplete).*
Edinboro,	Erie,	1,212	May 1913-Dec. 1915.
Egypt,	Lehigh,	450	See North Whitehall.
Ellwood City,	Lawrence,		Feb. 1909-Dec. 1915.
Ellwood Junction,	Beaver,		Jan. 1894-March 1908.
Emporium,	Cameron,		March 1888-Dec. 1915.
Ephrata,	Lancaster,		Nov. 1865-Feb. 1877; Sept. 1899-Dec. 1915. (Early record incomplete).
Erie,	Erie,		June 1873-Dec. 1915.
Everett,	Bedford,		June 1897-Dec. 1915.
Factoryville,	*Wyoming,*		*April 1874-June 1874.*
Falls Creek,	Jefferson,	1,495	Nov. 1913-Dec. 1915.
Fallsington,	Bucks,		Jan. 1883-Oct. 1887.
Farrandsville,	Clinton,	583	Jan. 1896-Nov. 1890.
Fayette Tannery,	*Fayette,*	*780*	*Jan. and Feb. 1867.*
Fleming,	Center,	780	Jan. 1859-June 1867.
Forks of Neshaminy,	Bucks,		Sept. 1884-Dec. 1886; Jan. 1889-Dec. 1913.
Fort Mifflin,	Philadelphia,	20	Jan. 1843-Dec. 1844; Jan. 1849-Oct. 1853.
Fountain Dale,	Adams,		May 1867-Sept. 1872. (Portion of record incomplete).
Four Mile Run,	*Cameron,*		*Dec. 1874-Dec. 1876. (Record incomplete).*

TABLE IV. *Rainfall Stations in Pennsylvania—Continued*

Station.	County.	Elevation above mean sea level.	Term of Record.
		Feet.	
Franklin,	Cambria,		Jan. 1908-Sept. 1911.
Franklin,	Venango,	960	Feb. 1840-Dec. 1841; Sept. 1868-Sept. 1890; Jan. 18[illegible]-Dec. 1915.
Frederick and Spring Mount,	Montgomery,		Aug. 1883-Dec. 1886; Jan. 1889-Dec. 1899; Jan. 1901-Dec. 1913.
Freeland,	Luzerne,		July 1914-Dec. 1915.
Freeport,	Armstrong,		Aug. 1877-Dec. 1915. (18[illegible] and 1888 incomplete).
Ganoga Lake,	Sullivan,		May 1908-Dec. 1915.
George School,	Bucks,	190	Jan. 1907-Dec. 1915.
Germantown,	*Philadelphia,*		*July 1819-Dec. 1827; July, Aug. and Oct. 1843; Jan. 1867-Dec. 1890. (Record incomplete. Portion of record contained in Philadelphia table).*
Gettysburg,	Adams,		Jan. 1839-July 1863; July 1864-Feb. 1865; Aug. 1889-Sept. 1890; Jan. 1893-Feb. 1896; June 1903-Dec. 1915.
Girardville,	Schuylkill,	1,000	Jan. 1887-Dec. 1915.
Gordon,	Schuylkill,		July 1903-Dec. 1915.
Gouldsboro,	Wayne,		July 1914-Dec. 1915.
Grampian,	Clearfield,	1,400	July 1864-Nov. 1876; Oct. 1882-June 1906. (Portion of record incomplete).
Greencastle,	*Franklin,*	*650*	*July 1870-Sept. 1870; Aug. 1877-Aug. 1878; July 1880-Nov. 1880.*
Green Lane,	Montgomery,		Aug. 1883-Dec. 1885.
Greensboro,	Greene,		Jan. 1889-Dec. 1915.
Greensburg,	Westmoreland,		April 1908-Dec. 1915.
Greenville,	Mercer,	1,725	Jan. 1883-June 1891; Jan. 1894-June 1896; March 1897-Oct 1898; Jan. 1903-Dec. 1915.
Grove City,	Mercer,	1,256	Jan. 1907-Dec. 1915.
Hadley,	Mercer,	1,050	Jan. 1914-Dec. 1915.
Hallstead,	*Susquehanna,*		*Oct. 1896-Dec. 1897.*
Hamburg,	Berks,		Sept. 1890-Dec. 1915.
Hamlinton,	Wayne,	1,100	April 1869-July 1874. (Portion of record incomplete).
Hamlinton,	Wayne,	1,575	May 1913-Dec. 1915.
Hanover,	York,	600	Jan. 1904-Dec. 1915.
Harrisburg,	Dauphin,	405	Aug. 1914-Dec. 1915.
Harrisburg,	Dauphin,		Aug. 1840-Oct. 1841; April 1843-Dec. 1846; Jan. 1854-Sept. 1871. (Portion of record incomplete).
Harrisburg,	Dauphin,		Jan. 1889; Dec. 1915.
Haverford,	*Delaware,*	*400*	*Jan. 1839-Dec. 1841; Jan. 1854-June 1863; Feb. 1883-June 1885. (Record incomplete).*
Hawley,	Wayne,	899	Nov. 1897-March 1900.
Hawthorne,	Clarion,		Feb. 1899-Nov. 1903. (Portion of record incomplete).
Hazleton,	*Luzerne,*	*1,850*	*Jan. 1872; Jan. 1873; Jan. 1874-March 1877. (Record incomplete).*
Herrs Island Dam,	Allegheny,		April 1898-Dec. 1915.
Hinckston Run Dam,	Cambria,		See Johnstown (Hinckston Run Dam).
Hollidaysburg,	Blair,	947	Jan. 1888-Dec. 1898.
Holsopple,	Somerset,		Jan. 1902-Dec. 1915.
Honesdale,	Wayne,	1,000	Jan. 1882-July 1897; Sept. 1914-Dec. 1915.
Horsham,	Montgomery,		See Moreland.
Hulmeville,	*Bucks,*		*July 1877-Dec. 1880; Sept. 1883-Aug. 1884; Feb. 1890; Sept. 1891-July 1892. (Record incomplete).*
Huntingdon,	Huntingdon,		May 1895-Dec. 1904.
Huntingdon,	Huntingdon,		Jan. 1888-Dec. 1915.
Huntsville Intake,	Luzerne,	510	See Trucksville.
Hyndman,	Bedford,		Jan. 1906-Dec. 1915.

TABLE IV. *Rainfall Stations in Pennsylvania—Continued*

Station.	County.	Elevation above mean sea level.	Term of Record.
		Feet.	
Indiana,	Indiana,	......	Jan. 1888-Oct. 1892; June 1896-Sept. 1898; Feb. 1908-Dec. 1915. (Portion of record incomplete).
Indian Creek Watershed,	*Westmoreland and Fayette,*	......	*Aug. 1892-Dec. 1893.*
Irwin,	Westmoreland,	......	Sept. 1896-Dec. 1915.
Johnstown,	Cambria,	......	Feb. 1868-Nov. 1871; Jan. 1885-Dec. 1915.
Johnstown (Hinckston Run Dam),	Cambria,	......	Jan. 1902-Dec. 1915.
Johnstown (Mill Creek Reservoir),	Cambria,	......	Jan. 1902-Dec. 1915.
Kane,	McKean,	......	Feb. 1892-March 1893; Jan. 1894-Sept. 1894.
Karthaus,	Clearfield,	......	Jan. 1896-Dec. 1901. (Portion of record incomplete).
Keating,	Clinton,	1,870	Jan. 1896-Dec. 1903. (Portion of record incomplete).
Kennett Square,	Chester,	......	Jan. 1854-Dec. 1873; May 1889-Dec. 1915. (1860 and 1889 incomplete).
Ketner,	Elk,	1,780	Dec. 1913-Dec. 1915.
Kilmer,	Juniata,	475	Feb. 1889-Dec. 1894.
Kinsman,	Trumbull, Ohio,	935	Jan. 1914-Dec. 1915.
Kutztown,	*Berks,*	......	*June 1888-Oct. 1888.*
Laflin,	Luzerne,	906	Jan. 1908-Dec. 1911; Jan. 1915-Dec. 1915.
Lancaster,	Lancaster,	......	Jan. 1888-May 1896; Jan. 1900-Dec. 1915. (Record incomplete).
Lancaster Colliery,	*Schuylkill,*	*920*	*Jan. 1856-Dec. 1856.*
Lansdale,	Montgomery,	......	May 1884-Dec. 1886; Jan. 1889-Dec. 1913.
Lansford,	Carbon,	......	May 1906-Dec. 1915.
Latrobe,	*Westmoreland,*	*569*	*May 1861.*
Lawrenceville,	Tioga,	......	Jan. 1897-Dec. 1915. (Portion of record incomplete).
Lebanon,	Lebanon,	480	July 1828-Feb. 1872; Jan. 1883-Dec. 1886; Jan. 1888-Dec. 1915.
Leetsdale,	*Allegheny,*	......	*April 1883-April 1885.*
LeRoy,	Bradford,	1,400	Jan. 1889-Dec. 1915.
Lewisburg,	Union,	457	Feb. 1856-Oct. 1860; Jan. 1865-Nov. 1873; Oct. 1889-Dec. 1915. (Portion of record incomplete).
Lewistown,	*Mifflin,*	......	*Nov. 1889-July 1890.*
Ligonier,	Westmoreland,	1,750	April 1890-May 1894.
Linden,	*Lycoming,*	......	*Dec. 1858-April 1859.*
Linesville,	Crawford,	1,110	March 1912-Dec. 1915.
Litchfield,	*Bradford,*	......	*March 1879-June 1880.*
Lloyd,	Tioga,	2,180	Feb. 1911-Dec. 1915.
Lock Haven (a),	Clinton,	560	Jan. 1896-Dec. 1904.
Lock Haven (b),	Clinton,	560	March 1888-Dec. 1915.
Lock No. 4,	Washington,	......	Jan. 1886-Dec. 1915.
Logania,	Perry,	361	See Aqueduct.
Lycippus,	Westmoreland,	1,420	Jan. 1892-Dec. 1915.
Lykens,	Dauphin,	......	Oct. 1914-Dec. 1915.
Lynnport,	*Lehigh,*	......	*Nov. 1889-Sept. 1890.*
McCall Ferry,	Lancaster,	......	July 1914-Dec. 1915.
McConnellsburg,	Fulton,	875	Jan. 1888-July 1893.
Mahanoy Plane,	*Schuylkill,*	*1,132*	*Feb. 1885-Oct. 1886.*
Mahoning,	Armstrong,	......	Dec. 1888-Oct. 1895.
Marion,	Franklin,	......	June 1903-Dec. 1915.
Marshall's Creek,		......	*May 1889.*
Mauch Chunk or East Mauch Chunk,	Carbon,	550	Oct. 1889-Dec. 1915.
Media,	Delaware,	......	Jan. 1915-Dec. 1915.
Meadville,	*Crawford,*	*1,077*	*Jan. 1839-Dec. 1841; May 1856-Sept. 1858; June 1881-March 1883; Oct. 1887-Jan. 1894. (Record incomplete).*
Meshoppen,	*Wyoming,*	......	*Feb. 1889-Dec. 1891. (Record incomplete).*
Mifflin,	Juniata,	490	May 1895-April 1905.
Mifflintown	Juniata,	445	June 1903-Dec. 1915.
Mill Creek Intake,	Luzerne,	906	See Laflin.
Mill Creek Reservoir,	Cambria,	......	See Johnstown (Mill Creek Reservoir).

TABLE IV. *Rainfall Stations in Pennsylvania—Continued*

Station.	County.	Elevation above mean sea level.	Term of Record.
		Feet.	
Milford,	Pike,	455	Jan. 1903-Dec. 1915.
Millville Depot,	*Pike,*	*1,300*	*Dec. 1883-Feb. 1884.*
Milton,	Northumberland,	480	June 1879-May 1882.
Mineral Point,	Cambria,	.....	Jan. 1906-May 1912; March 1914-Dec. 1915.
Montrose,	Susquehanna,	.....	June 1888-Sept. 1888; Sept. 1903-Dec. 1915.
Moosic,	Lackawanna,	910	Jan. 1897-Dec. 1915.
Moreland and Horsham,	Montgomery,	.....	June 1864-Nov. 1873.
Morrisville,	Bucks,	34	Jan. 1825-Dec. 1846; Jan. 1850-Dec. 1852; Jan. 18 March 1876; Oct. 1878-Oct. 1887.
Mosgrove,	Armstrong,	.....	Jan. 1913-Dec. 1915.
Moss Grove,	*Crawford,*	*1,400*	*Jan. 1854-Feb. 1857. (Record incomplete).*
Mountain House,	Fulton,	.....	March 1909-Dec. 1915.
Mount Gretna,	Lebanon,	.....	April 1910-Dec. 1915.
Mount Joy,	Lancaster,	.....	Aug. 1857-Dec. 1859; Jan. 1861-Oct. 1867; June 18 Dec. 1873.
Mount Pisgah,	*Bradford,*	*2,500*	*June and August 1886.*
Mount Rock,	*Cumberland,*	.....	*Aug. 1871-April 1872; Jan. 1874-March 1875.*
Mt. Carmel,	Northumberland,	.....	July 1909-Dec. 1915.
Mt. Pocono,	Monroe,	.....	See Pocono Lake.
Muncy Valley,	Sullivan,	.....	Oct. 1909-Aug. 1911; Sept. 1913-Dec. 1915.
Murrysville,	*Westmoreland,*	*1,000*	*April 1857-March 1859; Jan. and July 1867; Jan. 1868-March 1868.*
Murrysville,	Westmoreland,	900	Aug. 1914-Aug. 1915.
Myerstown,	*Lebanon,*	.....	*May 1889-Dec. 1890.*
Nazareth,	Northampton,	530	Feb. 1856-July 1857; Sept. 1858-Nov. 1859; March 18 -May 1862. (Record incomplete).
Neshaminy,	Bucks,	.....	Jan. 1915-Dec. 1915.
New Bloomfield,	Perry,	400	Jan. 1888-April 1890.
New Castle,	Lawrence,	860	Jan. 1870-July 1882; Jan. 1888-April 1894; Jan. 19 Dec. 1915. (Portion of record incomplete).
New Geneva,	Fayette,	.....	Aug. 1877-May 1888. (18 incomplete).
New Germantown,	Perry,	.....	Aug. 1903-Oct. 1913.
Newtown,	Bucks,	.....	March 1839-June 1848.
Nisbet,	Lycoming,	.....	Feb. 1889-Dec. 1891; Jan. 1896-April 1896; Jan. 18 May 1900.
No. 6 Reservoir,	Northumberland,	.....	See Mt. Carmel.
Norristown,	Montgomery,	.....	Jan. 1854-Dec. 1859; Jan. 1861-July 1863.
North Abington,	Luzerne,	1,183	April 1868-Dec. 1874.
North Shippen,	*Cameron,*	.....	*Dec. 1874.*
Northumberland,	Northumberland,	450	Jan. 1839-Dec. 1841.
North Whiteball and Egypt,	Lehigh,	400	Feb. 1874-April 1881.
Nyces,	Pike,	1,000	See Blooming Grove.
Oil City,	Venango,	.....	Jan. 1877-March 1883; Jan. 1887-March 1905.
Ottsville,	Bucks,	.....	Jan. 1889-Dec. 1913.
Oxford,	*Chester,*	*575*	*May 1865-Sept. 1865.*
Parkers Landing,	Armstrong,	.....	Jan. 1885-Dec. 1915. (18 incomplete).
Parkersville,	Chester,	.....	See Pocopson.
Paupack,	Pike,	.....	Jan. 1912-Dec. 1915.
Pen Mar,	*Franklin,*	.....	*Jan. 1906-June 1906; Jan. 1908-Feb. 1908.*
Penn Line,	Crawford,	1,030	Jan. 1914-Dec. 1915.
Pennsburg,	*Montgomery,*	.....	*Sept. 1883-April 1884.*
Petersburg,	Huntingdon,	.....	April 1889-Dec. 1900.
Philadelphia,	Philadelphia,	.....	July 1819-Dec. 1915.
Philadelphia, Bureau of Water,	Philadelphia,	.....	Jan. 1891-Dec. 1895. (Portion of record incomplete)
Philadelphia, Centennial Avenue,	Philadelphia,	.....	Jan. 1891-Dec. 1915.
Philadelphia, Frankford Arsenal,	Philadelphia,	.....	Jan. 1889-Feb. 1892.
Philadelphia, Friends Asylum at Frankford,	Philadelphia,	.....	Jan. 1908-Dec. 1909; Sept. 1912-Dec. 1915.

TABLE IV. *Rainfall Stations in Pennsylvania—Continued*

Station.	County.	Elevation above mean sea level.	Term of Record.
		Feet.	
Philadelphia, Navy Yard,	Philadelphia,	......	Nov. 1915-Dec. 1915.
Philipsburg,	Center,	1,350	April 1886-Dec. 1890.
Phoenixville,	Chester,	190	Aug. 1890-June 1895; Jan. 1915-Dec. 1915.
Pikes Creek Intake,	Luzerne,	1,052	See Cease Mills.
Pittsburgh,	Allegheny,	......	Aug. 1836-April 1867; Jan. 1872-Dec. 1915. (1838-1866-1867 incomplete).
Pittsburgh, Allegheny Arsenal,	Allegheny,	704	Jan. 1889-Feb. 1892. Also see Pittsburgh.
Plainfield,	*Cumberland,*	......	*May 1872-Dec. 1873.*
Pleasant Mount,	Wayne,	......	March 1889-May 1892. (Record incomplete).
Plymouth Meeting,	Montgomery,	......	Feb. and Dec. 1868; Jan. 1869-May 1872.
Pocono Lake,	Monroe,	......	Oct. 1901-May 1913; June 1914-Aug. 1914; April 1915-Dec. 1915.
Pocono Pines,	Monroe,	......	See Pocono Lake.
Pocopson,	Chester,	......	Jan. 1854-Dec. 1873.
Point Pleasant,	Bucks,	......	Jan. 1889-Dec. 1913.
Port Carbon,	*Schuylkill,*	......	*Aug. 1840-Dec. 1841.*
Pottstown,	Montgomery,	140	Jan. 1876-Oct. 1898; Jan. 1901-March 1903; April 1914-Dec. 1915.
Pottsville,	Schuylkill,	......	Jan. 1883-Dec. 1915.
Promised Land,	Pike,	......	Oct. 1913-Dec. 1915.
Punxsutawney,	Jefferson,	......	July 1913-May 1915.
Quakertown,	Bucks,	536	Jan. 1872-Dec. 1876; May 1880-April 1905; May 1914-Dec. 1915.
Quemahoning Dam,	Somerset,	......	See Holsopple.
Randolph,	*Crawford,*	*1,720*	*June 1854-Feb. 1856. (Record incomplete).*
Reading,	Berks,	269	April 1839-Nov. 1839; June 1840-Dec. 1840; July 1869-Oct. 1875; Sept. 1877-March 1879; Jan. 1880-Dec. 1915.
Reedsville,	Mifflin,	......	Oct. 1897-Aug. 1899. (Record incomplete).
Renovo,	Clinton,	......	Aug. 1896-Dec. 1903. (Portion of record incomplete).
Renovo,	Clinton,	......	Jan. 1896-May 1904; Sept. 1905-Dec. 1915.
Ridgway,	Elk,	......	Dec. 1890-Sept. 1899; Feb. 1913-Dec. 1915.
Rimersburg,	*Clarion,*	......	*Nov. 1888.*
Ringtown,	*Schuylkill,*	......	*May 1872-June 1872; Nov. 1878-March 1879.*
Rochester,	*Beaver,*	......	*June 1888.*
Rose Cottage,	*Jefferson,*	......	*Jan. 1839-March 1840. (Record incomplete).*
Rush Valley,	*Susquehanna,*	......	*Aug. and Sept. 1891.*
Sadsburyville,	Chester,	......	Jan. 1911-Dec. 1915.
Saegerstown,	Crawford,	......	Dec. 1891-Dec. 1915.
Salem Corners,	Wayne,	1,600	April 1869-Nov. 1871; May 1888-Dec. 1899.
Saltsburg,	Indiana,	......	Jan. 1888-Nov. 1896; Nov. 1901-Dec. 1915.
Schuylkill Haven,	Schuylkill,	......	Jan. 1880-May 1889.
Scranton,	Lancaster,	......	Sept. 1888-Dec. 1888; April and May 1890; Sept. 1895-Dec. 1915.
Seisholtzville,	Berks,	......	April 1889-Dec. 1913.
Selinsgrove,	Snyder,	455	Aug. 1888-Dec. 1915.
Sellersville,	*Bucks,*	......	*June 1884-Dec. 1885.*
Sewickleyville,	*Allegheny,*	*656*	*Jan. 1861-Jan. 1862.*
Shamokin,	Northumberland,	750	Jan. 1857-Dec. 1862.
Shamokin,	Northumberland,	......	Jan. 1908-Dec. 1915.
Sharon,	Mercer,	......	April 1912-Dec. 1915.
Shartlesville,	*Berks,*	......	*Jan. and Feb. 1876.*
Shawmont,	Philadelphia,	......	March 1896-Dec. 1915.
Shinglehouse,	Potter,	1,475	Nov. 1893-Nov. 1899; April 1901-Sept. 1901.
Shippensburg,	Cumberland,	......	June 1911-Dec. 1915. (Portion of record incomplete).
Silver Lake,	*Susquehanna,*	......	*March 1839-Dec. 1841. (Record incomplete).*

TABLE IV. *Rainfall Stations in Pennsylvania—Continued*

Station.	County.	Elevation above mean sea level.	Term of Record.
		Feet.	
Silver Spring,	*Lancaster,*		*Jan. 1867.*
Sinnemahoning,	*Cameron,*		*July 1895-March 1901.*
Skidmore,	Lawrence,		See New Castle.
Skippack,	*Montgomery,*		*Aug. 1893-Nov. 1893; Dec. 1896-June 1897.*
Smethport,	McKean,	1,[illegible]	Feb. 1839-Aug. 1841; June 1888-June 1889; June 18[illegible]-Sept. 1891; April 1892-Dec. 1894. (Record incomplete).
Smiths Corners,	Bucks,		Jan. 1889-Dec. 1899; Jan. 1901-Dec. 1913.
Somerset,	Somerset,		Jan. 1840-Dec. 1841; Jan. 1846-Dec. 1846; May 18[illegible]-Dec. 1856; July 1857-Dec. 1861; Jan. 1888-Dec. 1915.
South Bethlehem,	Northampton,	[illegible]	Jan. 1885-Nov. 1887; Jan. 1892-Aug. 1903.
South Eaton,	Wyoming,	600	Sept. 1889-Sept. 1905.
South Sterling,	Pike,		May 1913-Dec. 1915.
Spring Brook Intake,	Lackawanna,	910	See Moosic.
Springdale,	Allegheny,		March 1905-Dec. 1915.
Spring Mill,	*Montgomery,*		*Yearly totals 1810-1823.*
Spring Mount,	Montgomery,		See Frederick.
Spruce Creek,	*Huntingdon,*		*May 1895-June 1896.*
State College,	Center,	1,191	Sept. 1883-Dec. 1884; Jan. 1887-Dec. 1915. (1882-83-84 incomplete).
Stevensville,	*Bradford,*	*700*	*May 1866-Feb. 1867.*
St. Marys,	Elk,		June 1896-May 1910. (Record incomplete).
Stoyestown,	Somerset,	1,712	Dec. 1890-Nov. 1895.
Stroudsburg,	Monroe,		Dec. 1910-Dec. 1915.
St. Vincent College,	*Westmoreland,*	*922*	*Jan. 1861-June 1862.*
Sugar Grove,	*Warren,*	*1,350*	*Aug. 1853-May 1854.*
Summit,	Crawford,	1,1[illegible]0	Jan. 1914-Dec. 1915.
Sunbury,	Northumberland,	445	Jan. 1896-Dec. 1903; April 1913-Dec. 1915. (Record incomplete).
Susquehanna Depot,	*Susquehanna,*	*800*	*June and July 1863.*
Swarthmore,	Delaware,	190	June 1888-April 1906. (Record incomplete).
Swiftwater,	Monroe,	1,0[illegible]	Feb. 1897-Oct. 1900. (Record incomplete).
Tamaqua,	*Schuylkill,*	*700*	*May 1870-Oct. 1870; Jan. 1884-Feb. 1885.*
Tarentum,	*Allegheny,*	*930*	*May 1872-April 1880. (Record incomplete).*
Tidioute,	*Warren,*	*1,133*	*Sept. 1885-Nov. 1885.*
Tioga,	Tioga,	1,000	Jan. 1864-March 1872. (Portion of record incomplete).
Tionesta,	*Forest,*		*Aug. 1888-Jan. 1890. (Record incomplete).*
Tipton,	*Blair,*		*April 1889-Nov. 1890. (Record incomplete).*
Tohickon,	*Bucks,*		*Oct. 1883-Sept. 1885.*
Towanda,	Bradford,		Oct. 1894-Dec. 1915.
Trafford,	Westmoreland,	800	Aug. 1911-Aug. 1915.
Transfer,	Mercer,	1,0[illegible]	Jan. 1911-Dec. 1915.
Tremont,	Schuylkill,	7[illegible]2	Jan. 1909-Sept. 1911.
Trout Run,	Lycoming,		Feb. 1898-Nov. 1904.
Troy,	Bradford,		Aug. 1884-July 1886; April 1888-Dec. 1891. (Record incomplete).
Trucksville,	Luzerne,	810	Jan. 1897-Dec. 1915.
Turnersville,	Crawford,	1,015	March 1912-Dec. 1915.
Tuscarora,	Juniata,		See Kilmer.
Union City,	Erie,	1,200	Jan. 1914-Dec. 1915.
Uniondale,	*Fayette,*	*891*	*June 1878-Dec. 1878.*
Uniontown,	Fayette,		Jan. 1888-Dec. 1915. (1915 incomplete).
Upper Lehigh,	*Luzerne,*	*1,850*	*May 1874-July 1876.*
Vandergrift,	Westmoreland,	810	Dec. 1913-Dec. 1915.
Vanport,	*Beaver,*		*March 1897.*
Warren,	Warren,		Jan. 1889-Dec. 1915.
Warrior's Mark,	*Huntingdon,*		*March 1861-July 1861.*
Washington,	*Washington,*		*Jan. 1885-May 1885; Sept. 1885-Nov. 1885.*
Waterville,	Lycoming,		July 1914-Dec. 1915.

TABLE IV. *Rainfall Stations in Pennsylvania—Continued*

Station.	County.	Elevation above mean sea level.	Term of Record.
		Feet.	
Waynesburg,	*Greene,*	......	*Jan. 1890-Sept. 1890.*
Weikert,	Union,	......	Jan. 1911-Dec. 1915.
Wellsboro,	Tioga,	1,327	Jan. 1864-Dec. 1915.
West Bingham,	Potter,	......	June 1914-Dec. 1915.
West Chester,	Chester,	461	June 1817-Dec. 1827; Jan. 1843-Dec. 1915.
Western State Express Farm,	*Indiana,*	*1,300*	*April 1872-Oct. 1872.*
Westford,	Crawford,	1,100	Dec. 1913-Dec. 1915.
West Greenfield,	*Mercer,*	......	*May 1840.*
West Marlborough,	Chester,	......	Jan. 1843-Dec. 1857.
West Newton,	Westmoreland,	......	Jan. 1891-Dec. 1915.
Westtown,	Chester,	......	Aug. 1887-May 1902. (Record incomplete).
Whitehall,	*Lehigh,*	*250*	*Feb. 1860 - March 1861; Jan. 1867 - Dec. 1868. (Record incomplete).*
White Haven,	Luzerne,	1,150	March 1895-April 1899; June 1906-July 1907; July 1914-Dec. 1915.
Wilkes-Barre,	Luzerne,	575	June 1883-Dec. 1915. (Early record incomplete).
Wilkes-Barre,	Luzerne,	545	Jan. 1899-Dec. 1915.
Wilkes-Barre,	*Luzerne,*	......	*June 1881-Dec. 1885. (Record incomplete. Diary of E. L. Dana).*
Williamsfield,	Ashtabula, Ohio,	1,060	Jan. 1914-Dec. 1915.
Williamsport,	Lycoming,	530	Jan. 1873-Feb. 1878; Feb. 1889-Dec. 1891; Jan. 1896-Dec. 1915.
Wilsonville,	Wayne,	......	Jan. 1912-Dec. 1915.
Windber,	*Somerset,*	......	*July 1903-Nov. 1903.*
Worthington,	*Armstrong,*	*1,050*	*July 1859-July 1862.*
Wysox,	Bradford,	718	Aug. 1885-Oct. 1893. (Portion of record incomplete).
York,	York,	381	Jan. 1888-Dec. 1915.
York Sulphur Springs,	Adams,	......	Jan. 1871-Aug. 1876.
Youngsville,	Warren,	*1,185*	*Feb. 1854.*
Zionsville,	Lehigh,	......	*Feb. 1886-Feb. 1887.*

TABLE V. *Monthly and Annual Precipitation at Pennsylvania Stations*

Aleppo, Greene Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1900,	....	....	....	....	....	....	....	....	....	....	....	1.07	....
1901,	1.71	0.60	1.52	4.40	5.90	4.16	3.46	3.40	3.98	0.54	2.77	4.79	37.23
1902,	2.57	2.24	4.46	4.16	1.90	3.67	8.56	2.99	3.95	2.95	3.02	5.54	46.09
1903,	2.89	5.23	4.81	3.96	4.65	5.78	5.99	2.54	0.91	3.25	2.03	2.18	44.22
1904,	2.27	2.12	5.99	3.98	2.71	4.82	3.38	3.23	1.63	1.39	0.26	2.91	34.69
1905,	3.48	1.74	4.40	2.91	3.40	3.60	3.20	2.34	2.70	4.71	3.15	3.93	39.56
1906,	3.20	1.24	3.89	3.43	2.00	4.14	3.48	6.28	2.56	2.23	1.79	5.09	38.93
1907,	7.03	1.99	8.17	3.34	3.60	3.90	9.46	3.63	3.79	3.64	2.73	3.25	54.53
1908,	2.09	3.55	6.65	4.70	5.86	1.73	3.75	2.62	0.81	1.44	0.65	2.62	35.87
1909,	3.29	5.06	2.81	4.10	3.96	4.58	4.50	2.87	1.30	2.19	1.07	1.92	37.65
1910,	6.85	3.67	0.25	3.10	4.18	2.54	5.15	1.12	2.52	1.80	1.80	2.49	35.58
1911,	5.95	1.66	1.75	3.59	1.83	4.69	[illegible]	6.11	6.02	5.10	2.88	3.10	44.07
1912,	1.74	1.06	4.71	3.31	2.04	4.59	8.04	2.31	4.35	1.48	1.60	2.81	38.03
1913,	7.59	1.33	3.88	2.05	5.55	2.92	4.32	1.48	2.85	4.41	3.69	2.52	42.59
1914,	3.43	3.05	3.43	4.63	2.59	4.04	2.52	4.36	1.99	2.48	1.52	6.42	39.37
1915,	4.51	2.14	1.03	2.06	5.56	3.68	....	3.53	4.37	3.46	2.91	4.36	....
Means,	3.91	2.52	3.74	3.58	3.71	3.92	4.80	3.26	2.92	2.74	2.10	3.43	40.63

Allentown, Lehigh Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1911,	....	....	....	....	....	....	....	....	....	....	....	2.90	.....
1912,	3.25	2.48	5.85	3.37	4.32	2.71	2.85	5.10	7.43	3.31	3.17	3.59	47.41
1913,	3.94	2.09	7.24	6.82	2.60	2.00	3.64	4.10	3.97	5.80	2.79	4.07	49.06
1914,	3.93	4.53	2.03	3.71	2.96	2.48	5.20	2.92	0.28	1.61	2.04	5.53	37.25
1915,	6.03	5.74	1.00	2.70	3.76	2.15	4.34	11.19	3.65	4.02	2.07	4.82	51.47

Altoona, Blair Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1884,	....	....	....	....	....	....	....	....	....	1.63	0.77	3.29	....
1885,	3.92	1.59	0.44	1.83	....	....	....	....	0.82	3.61	1.92	1.73	....
1886,	....	0.87	2.29	3.16	....	....	2.35	....	2.45	0.74	....	0.99	....
1887,	0.52	4.40	0.52	2.35	3.14	3.90	3.13	1.33	2.96	0.90	1.07	1.16	25.38
1888,	3.97	1.17	1.75	2.34	4.08	2.38	2.73	5.36	3.05	2.90	2.45	1.44	33.62
1889,	1.82	1.24	2.37	3.44	4.75	4.73	4.60	1.52	2.74	2.38	4.02	3.42	37.03
1890,	2.17	4.09	2.90	5.29	4.47	2.52	3.22	4.09	3.98	4.12	1.07	3.80	41.72
1891,	2.35	4.59	2.62	1.36	1.97	7.73	3.99	3.13	2.71	2.54	1.89	2.96	37.84
1892,	2.08	1.57	2.37	1.66	5.35	5.33	2.50	2.96	1.94	0.10	2.69	*2.00	30.55
1893,	1.65	3.21	1.06	3.48	4.67	2.94	2.50	2.92	1.85	3.71	1.48	2.15	30.62
1894,	0.99	1.82	0.80	1.69	9.32	2.66	1.01	3.18	5.25	1.77	0.74	2.30	31.53
1895,	3.22	0.17	1.05	2.16	0.80	3.75	1.75	1.64	2.28	0.55	1.30	2.50	21.17
1896,	0.87	1.94	1.77	1.38	2.70	8.45	5.35	1.88	6.65	2.28	2.80	1.44	37.54
1897,	2.03	3.31	3.44	3.88	3.09	3.05	3.98	2.17	3.18	0.75	5.36	3.54	37.78
1898,	4.05	1.23	5.81	2.22	6.55	1.99	1.91	3.75	0.76	7.44	2.14	2.67	40.52
1899,	2.41	3.33	4.79	1.61	5.62	1.79	3.67	4.46	3.82	1.23	2.89	2.70	38.35
1900,	2.21	3.55	3.12	1.22	3.91	2.53	3.25	3.90	1.48	3.63	4.54	1.50	34.84
1901,	1.89	0.78	4.07	6.22	5.55	4.04	5.83	5.34	2.59	0.59	2.03	4.92	44.15
1902,	2.85	2.60	3.96	5.30	1.30	5.40	6.88	1.12	1.58	4.36	1.05	5.37	41.77
1903,	3.84	4.59	4.38	2.99	2.63	4.34	4.51	5.08	1.93	3.36	1.82	1.50	40.97
1904,	3.03	2.39	4.12	4.40	2.93	3.09	4.68	1.69	1.73	1.43	0.63	1.98	32.10
1905,	3.23	1.44	2.84	1.98	4.69	5.16	4.72	5.19	2.23	3.94	2.28	3.36	42.06
1906,	2.63	0.75	4.21	2.26	2.44	2.66	3.42	8.36	1.68	2.26	0.63	3.80	35.10
1907,	5.31	1.50	5.65	1.89	2.42	5.69	2.06	3.28	5.90	1.80	3.35	3.27	42.12
1908,	3.18	4.38	6.19	3.31	8.27	1.70	*4.27	3.20	0.62	0.61	0.83	3.27	29.83
1909,	2.04	3.94	2.52	5.34	2.48	3.71	2.37	1.17	2.47	2.71	0.27	3.10	32.12
1910,	6.48	2.18	0.46	3.79	2.89	3.56	1.59	2.10	5.12	1.05	0.33	1.53	31.08
1911,	1.89	1.05	1.92	2.86	2.46	3.41	2.02	4.62	5.20	3.22	1.43	1.66	31.71
1912,	0.76	2.52	5.43	3.10	4.25	3.53	9.03	†3.24	†5.36	2.40	2.34	*2.49	44.45
1913,	4.69	1.26	3.12	2.28	5.64	1.96	4.84	1.49	4.48	7.90	3.08	2.94	43.68
1914,	3.27	3.58	2.56	4.80	3.32	4.07	3.38	1.77	0.76	3.35	1.87	4.28	36.99
1915,	5.79	3.09	0.87	1.10	5.74	5.03	2.80	3.68	2.64	2.95	2.40	3.51	39.60
Means,	2.56	2.17	2.81	2.69	3.95	3.70	3.29	3.18	2.71	2.32	1.86	2.40	33.64

Notes: *Interpolated. †Authority of E. F. Smith, C. E., Philadelphia.

Ansonia, Tioga Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1908,	....	....	....	....	....	....	....	....	....	2.62	0.68	2.93	....
1909,	2.19	3.18	1.55	5.90	1.93	5.01	1.29	1.06	2.74	2.19	0.87	1.86	29.77
1910,	3.61	2.47	0.42	6.82	2.99	2.06	1.43	2.04	4.60	1.05	2.41	1.90	31.80
1911,	1.85	2.10	1.47	2.64	0.95	4.91	2.73	6.52	4.18	2.68	1.63	1.78	33.44
1912,	0.69	2.81	3.18	4.50	5.97	2.12	3.90	3.57	4.84	2.06	2.16	1.79	36.59
1913,	3.80	1.14	4.12	3.05	3.75	2.47	3.68	2.00	1.88	6.25	2.41	1.62	36.17
1914,	1.13	2.21	1.92	4.15	5.38	2.58	3.03	4.53	0.69	2.63	1.95	2.84	33.04
1915,	6.14	2.19	0.98	0.88	3.34	2.74	5.19	....	2.71	2.95	1.28	2.39	....
Means,	2.77	2.30	1.95	3.99	3.47	3.13	2.89	3.29	3.09	2.80	1.67	2.14	33.49

Aqueduct (P. O. Logania), Perry Co.—(Elevation 361 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	....	2.48	3.98	3.39	9.55	4.85	5.86	3.10	....	2.83	6.56	2.45	....
1890,	2.26	4.37	5.57	3.98	10.38	4.02	1.89	6.87	3.83	5.00	0.32	2.25	50.74
1891,	3.39	2.66	5.07	2.35	1.65	3.15	9.67	6.40	1.00	3.15	2.96	4.55	46.00
1892,	4.94	0.22	4.82	1.77	6.03	2.82	2.40	3.65	5.40	....	4.30	1.23	37.58
1893,	2.43	7.96	2.96	4.13	6.40	3.83	2.30	3.78	2.66	3.29	3.14	2.25	45.13
1894,	1.55	4.69	1.09	4.29	8.00	2.78	2.39	2.67	5.68	5.56	2.64	3.79	45.13
1895,	3.72	0.74	2.04	4.23	2.06	1.65	2.66	2.39	2.31	1.27	2.20	4.15	29.36
1896,	1.25	5.65	4.08	1.28	2.65	4.85	7.11	2.00	2.59	4.33	3.47	0.63	39.89
1897,	1.50	2.70	1.93	2.53	5.93	2.93	3.78	2.72	2.66	2.34	5.87	3.15	38.04
1898,	2.79	1.78	3.18	2.59	6.34	2.29	3.09	7.51	1.11	6.58	2.75	2.12	42.13
1899,	2.59	4.36	3.87	1.14	3.65	3.70	1.80	8.21	3.92	1.85	3.07	2.45	40.61
1900,	2.71	3.97	3.83	1.38	....	....	....	....	....	....	....	....	....
Means,	2.66	3.46	3.54	2.76	5.69	3.35	3.90	4.48	3.11	3.29	3.39	2.64	42.26

Athens, Bradford Co—(Elevation 768 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1898,	....	....	2.06	3.47	3.06	2.44	2.49	5.86	1.64	4.94	2.39	1.61	....
1899,	2.53	2.84	2.75	1.41	3.15	1.93	3.90	4.32	2.49	1.38	3.26	2.57	32.53
1900,	1.59	2.84	3.39	1.73	1.26	2.16	2.70	1.48	1.15	3.10	4.60	2.14	28.14
1901,	0.74	0.45	3.82	5.40	5.14	4.11	3.32	4.79	2.33	1.48	3.10	4.47	39.15
1902,	2.05	1.89	3.41	2.71	1.65	5.18	5.68	2.17	4.01	3.08	1.11	2.93	35.87
1903,	2.60	2.54	4.33	2.38	2.00	5.42	3.57	5.79	1.71	5.91	2.40	1.42	40.07
1904,	3.02	1.15	....	....	....	....	....	....	....	....	....	....	....
Means,	2.09	1.95	3.29	2.85	2.71	3.54	3.61	4.07	2.22	3.32	2.81	2.52	34.98

Austin, Potter Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1910,	....	....	....	....	....	....	3.78	3.39	4.02	2.43	3.66	2.29	....
1911,	1.40	1.90	2.05	4.05	....	....	....	....	....	....	....	....	....
1912,	....	....	....	....	....	....	....	....	....	2.26	1.66	3.39	....
1913,	6.87	1.57	6.65	5.25	3.40	1.95	6.28	2.87	2.50	6.12	2.92	2.18	48.86
1914,	5.08	2.49	3.49	4.73	5.60	3.57	2.65	6.30	1.95	2.70	2.15	4.03	43.84
1915,	6.68	3.56	1.63	0.80	3.53	4.20	6.57	5.27	4.30	3.82	2.90	3.47	46.63

Baldwin, Butler Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1906,	....	0.60	3.22	0.75	4.40	5.62	3.45	6.51	2.75	5.51	1.74	2.84	....
1907,	2.85	1.94	3.89	3.75	3.69	4.83	4.83	0.88	4.32	2.41	2.44	3.35	39.18
1908,	1.83	5.35	5.67	5.55	4.14	3.14	6.04	2.19	....	0.83	0.99	3.35	....
1909,	3.59	5.42	3.46	....	2.39	6.13	2.79	1.87	1.58	2.55	1.49	3.27	....
1910,	7.56	4.03	0.35	3.63	3.48	1.68	3.09	2.93	8.45	2.30	2.09	4.27	43.86
1911,	3.19	3.09	2.43	3.25	1.69	3.76	1.84	7.76	7.77	8.79	3.45	3.32	50.34
1912,	1.96	2.19	2.38	3.37	2.03	3.49	....	5.75	4.06	3.56	1.32	1.70	....
1913,	7.64	2.35	6.14	2.22	2.46	2.21	4.88	1.29	1.50	6.45	2.60	2.45	42.19
1914,	3.88	1.69	1.64	4.73	3.86	3.09	2.63	6.00	1.75	2.90	1.68	5.12	38.97
1915,	4.89	3.36	....	....	4.13	4.95	5.94	5.57	3.99	1.71	2.23	4.91	....
Means,	4.15	3.00	3.24	3.41	3.23	3.89	3.94	4.08	4.02	3.70	2.00	3.46	42.12

Bear Gap, Northumberland Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1898,	3.90	1.01	3.45	2.97	6.32	2.20	2.60	7.28	0.70	5.06	2.71	2.40	40.60
1899,	1.96	3.61	4.19	1.15	3.95	5.78	4.55	4.30	5.32	2.03	1.69	3.44	41.97
1900,	1.73	5.30	2.27	1.16	1.66	2.18	6.14	5.02	0.68	2.27	2.43	2.20	33.04
1901,	0.82	1.00	4.51	3.67	4.39	2.11	1.89	11.92	3.43	2.57	1.49	5.68	43.38
1902,	2.70	5.11	4.50	2.03	0.50	6.30	6.17	1.44	4.87	5.77	1.64	3.66	44.68
1903,	3.26	5.01	4.60	3.12	1.33	8.73	5.23	3.88	1.89	5.39	1.76	2.47	46.66
1904,	0.55	2.53	2.23	2.64	4.49	4.51	5.70	3.77	3.78	2.79	1.01	0.20	34.20
1905,	2.02	0.00	5.11	2.35	1.87	2.20	5.48	6.56	3.97	5.04	2.32	3.39	40.31
1906,	0.55	2.53	4.28	5.09	1.86	4.94	2.75	6.21	1.86	4.17	1.34	4.13	38.71
1907,	2.03	1.18	2.68	1.46	2.08	4.41	2.67	3.28	6.29	4.34	2.68	5.05	38.14
1908,	1.80	4.61	3.98	2.16	4.77	1.87	10.94	2.93	1.55	2.57	0.64	3.06	40.88
1909,	3.70	6.60	3.05	6.62	3.09	2.81	1.34	0.72	1.80	2.40	1.53	2.86	36.52
1910,	5.71	4.32	1.10	5.74	3.78	6.09	1.84	3.89	4.38	1.76	2.10	2.63	43.34
1911,	3.72	1.77	2.49	3.50	1.86	3.34	3.54	9.26	4.18	5.53	2.76	3.00	44.95
1912,	1.93	2.24	6.34	4.83	3.79	1.70	4.77	5.64	5.56	2.66	3.14	3.84	45.44
1913,	4.03	1.36	5.96	5.20	2.86	1.91	5.93	2.91	3.60	5.03	1.74	2.99	43.51
1914,	3.20	2.55	2.80	4.70	3.43	5.20	5.39	3.68	1.99	1.50	1.07	4.77	40.28
1915,	5.34	4.91	0.46	2.55	3.09	2.59	4.40	7.94	2.18	1.33	2.18	5.27	42.24
Means,	2.72	3.09	3.50	3.38	3.06	3.83	4.52	4.98	3.22	3.46	1.90	3.38	41.05

Note: Furnished by Roaring Creek Water Co., Shamokin, Pa.

Beaver Dam, Beaver Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1893,	....	....	....	....	....	....	2.47	4.98	2.06	5.63	1.91	2.78	....
1894,	0.96	2.67	2.16	2.22	3.70	1.38	0.65	0.57	3.74	1.65	1.98	3.62	25.30
1895,	4.19	0.73	1.45	1.29	1.19	1.80	3.13	4.25	1.03	0.52	3.35	2.15	25.18
1896,	1.82	2.44	3.32	2.70	2.35	6.07	8.46	4.61	3.52	1.54	2.31	1.51	40.68
1897,	1.39	2.63	3.34	3.88	2.87	5.22	4.86	1.55	0.90	0.20	6.18	2.82	35.84
1898,	4.47	2.01	7.06	1.89	3.11	6.67	2.20	5.62	1.45	3.33	2.57	2.08	42.46
1899,	1.88	1.98	3.76	1.74	4.64	5.41	2.76	5.41	3.36	1.49	2.94	2.95	38.32
1900,	1.90	3.29	3.05	1.79	1.50	2.66	3.59	4.02	1.28	1.87	3.87	1.39	30.21
1901,	2.29	0.82	3.67	7.19	5.29	7.37	2.53	4.34	3.71	0.25	2.19	2.62	42.09
1902,	1.23	0.70	2.99	2.79	1.73	5.74	3.61	2.39	1.98	3.25	1.54	4.29	32.24
1903,	2.95	3.90	4.34	2.52	0.63	5.74	4.29	4.61	1.35	2.07	4.46	1.77	38.63
1904,	2.12	3.03	7.02	4.23	3.50	6.46	5.49	4.09	1.13	1.64	0.53	3.01	42.25
1905,	2.47	2.56	4.34	3.22	5.01	7.17	2.53	3.43	4.51	3.67	2.78	3.31	45.00
1906,	2.44	0.96	3.44	2.23	2.93	3.99	7.28	3.52	3.90	2.95	2.16	3.32	39.12
1907,	6.83	1.25	6.99	3.12	3.37	4.85	5.72	2.66	5.40	2.43	2.80	2.66	48.08
1908,	2.08	3.45	5.90	3.69	4.75	2.01	4.70	5.01	0.67	1.56	0.84	2.71	37.37
1909,	3.02	5.46	3.44	6.03	2.76	7.73	3.57	1.11	0.86	1.70	1.27	2.51	39.46
1910,	5.15	3.72	0.27	2.27	2.56	2.65	2.89	3.24	5.36	1.11	1.22	2.59	33.03
1911,	4.03	2.44	2.10	5.00	0.60	3.97	2.34	5.16	6.86	4.96	2.49	3.61	43.65
1912,	2.06	1.29	4.37	4.45	1.17	6.29	6.11	4.22	5.29	2.11	0.62	2.10	40.08
1913,	5.78	2.29	5.78	2.26	3.58	0.83	4.28	1.46	1.85	3.53	2.73	2.43	36.80
1914,	2.24	2.48	2.74	4.33	3.28	3.37	1.89	3.81	1.41	3.10	1.74	4.04	34.43
1915,	3.15	2.50	1.48	1.69	4.13	6.80	4.43	6.12	1.79	1.33	1.99	4.00	39.41
Means,	2.93	2.39	3.77	3.21	2.93	4.73	3.90	3.75	2.76	2.25	2.37	2.80	37.79

Beaver Falls, Beaver Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1908,	......	......	......	......	......	......	......	......	......	......	0.93	2.18	......
1909,	3.51	4.86	3.52	5.18	2.48	5.59	2.91	0.98	1.17	1.41	1.27	2.37	34.25
1910,	5.47	4.01	0.40	2.68	3.12	2.58	4.46	2.11	5.97	1.32	1.65	2.86	36.63
1911,	3.65	2.28	2.61	4.79	1.11	3.42	1.58	6.97	7.87	5.04	2.34	3.75	45.41
1912,	1.73	1.45	3.90	4.83	0.99	7.11	6.87	5.01	2.86	2.47	0.61	2.36	40.19
1913,	6.05	2.06	6.08	2.14	3.04	1.44	6.82	1.82	1.34	3.50	2.75	2.26	39.30
1914,	2.36	2.20	2.21	4.26	3.92	3.66	1.99	6.12	1.43	2.43	1.83	4.18	36.59
1915,	3.09	2.62	1.16	2.56	4.26	5.45	3.31	7.16	1.82	1.63	2.04	4.02	39.12
Means,	3.69	2.77	2.84	3.78	2.70	4.18	3.99	4.31	3.21	2.54	1.68	3:00	38.69

Bellefonte, Center Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1900,	......	......	......	......	......	......	......	......	......	3.96	4.49	2.24	......
1901,	2.08	0.95	3.98	5.10	5.87	3.26	3.63	11.25	2.76	0.24	2.28	6.06	47.45
1902,	2.70	3.06	5.23	3.91	2.30	6.47	6.83	1.23	4.67	3.49	1.87	5.21	46.97
1903,	2.78	4.23	4.16	3.47	1.13	7.44	5.72	5.50	2.63	3.66	1.64	2.22	44.48
1904,	3.72	2.52	5.13	4.38	3.34	3.85	5.18	2.53	1.75	2.06	0.56	2.22	37.24
1905,	3.42	1.00	4.25	2.50	2.88	3.63	3.72	3.08	2.51	3.51	2.90	3.60	37.00
1906,	1.79	1.46	4.24	2.51	2.27	4.29	7.60	4.64	......	......	1.30	......	......
1907,	5.00	1.71	4.86	2.71	2.38	5.33	1.73	1.96	5.79	2.60	2.42	4.30	40.78
1908,	1.70	4.58	5.35	3.73	9.16	1.47	5.30	2.90	1.01	1.59	0.85	3.80	40.94
1909,	2.47	4.62	2.05	7.21	2.82	5.98	1.34	2.47	2.90	2.44	0.50	1.19	35.99
1910,	5.68	......	0.27	7.82	2.54	3.00	5.20	2.44	4.54	2.01	1.40	1.94	......
1911,	2.83	2.23	3.50	4.07	3.36	6.76	2.06	7.55	6.09	6.35	2.67	3.27	50.74
1912,	1.77	2.34	4.01	4.41	......	......	......	......	......	......	......	......	......
1915,	......	......	......	......	......	......	......	......	......	2.21	2.25	3.55	......
Means,	3.00	2.61	3.92	4.32	3.46	4.68	4.39	4.14	3.46	2.84	1.92	3.26	42.01

Bethlehem, Northampton Co.—(Elevation 1,200 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1877,	....	....	....	....	....	....	6.50	6.64	3.23	6.21	5.40	[illegible]	....
1878,	4.52	3.25	2.75	2.92	4.65	3.50	6.28	2.03	2.49	3.40	3.44	5.60	[illegible]
1879,	....	1.23	3.41	3.98	2.17	8.38	4.04	6.03	1.90	0.81	1.84	5.54	....
1880,	2.95	2.86	4.13	3.50	1.26	3.88	4.17	2.50	2.47	1.85	2.73	1.71	34.01
1881,	4.06	2.43	5.48	0.99	2.87	6.08	1.36	0.59	0.90	2.90	2.72	4.61	34.99
1882,	3.32	3.90	4.91	2.19	6.58	3.28	2.77	3.54	5.25	2.70	1.32	1.62	41.38
1883,	4.32	4.04	2.71	2.79	2.88	8.62	4.52	[illegible]	4.30	5.16	1.54	2.59	44.92
1884,	2.28	4.85	5.04	2.41	2.86	4.76	8.13	[illegible]	1.03	3.64	2.71	6.06	46.35
1885,	4.43	3.65	1.04	2.36	2.29	1.05	2.76	[illegible]	0.54	4.93	4.25	1.60	38.09
1886,	3.63	4.68	4.08	2.94	5.59	4.52	[illegible]	[illegible]	1.76	2.12	5.44	3.66	44.21
1887,	3.62	5.46	1.86	2.08	1.96	5.70	8.58	[illegible]	2.78	1.12	1.32	5.11	43.05
1888,	5.08	3.50	3.84	3.30	2.84	3.12	2.64	[illegible]	10.93	2.77	3.82	3.60	51.64
1889,	4.66	1.94	3.35	4.30	4.30	5.28	9.93	[illegible]	6.11	3.30	8.73	1.66	67.68
1890,	2.28	4.43	6.12	2.58	7.44	3.10	6.02	[illegible]	3.51	6.17	0.82	2.98	[illegible]
1891,	5.62	3.88	5.38	1.96	2.29	2.44	5.80	[illegible]	2.63	2.66	1.89	4.11	44.01
1892,	5.76	0.62	4.67	0.70	4.40	3.89	1.37	[illegible]	2.54	0.44	6.70	1.60	36.02
1893,	2.79	6.41	2.57	3.38	4.59	2.97	1.88	4.61	2.14	2.79	3.51	2.47	40.11
1894,	1.54	4.50	1.29	2.41	10.80	2.49	2.83	2.07	8.54	5.04	2.86	4.85	49.22
1895,	4.04	0.89	2.31	4.46	2.33	4.48	3.84	2.96	0.63	3.69	1.66	2.61	[illegible]
1896,	1.26	6.41	5.82	1.27	6.30	3.60	6.13	2.22	3.68	2.77	4.32	0.70	41.48
1897,	2.35	2.57	2.60	3.41	6.05	4.03	4.81	3.61	2.10	1.22	5.99	4.22	42.92
1898,	4.35	3.17	2.79	3.37	6.05	1.05	4.47	5.23	0.90	4.44	5.23	3.50	44.55
1899,	3.65	2.11	4.06	1.70	1.76	3.10	3.08	4.83	7.31	1.15	....	1.37	....
1900,	2.54	4.13	....	....	....	2.43	5.11	....	1.22	....	....	2.03	....
1901,	....	....	4.94	4.42	4.56	....	3.66	8.75	3.08	2.62	1.64	6.57	....
1902,	2.07	6.89	5.03	3.37	1.07	6.75	4.10	5.82	6.32	5.90	1.64	8.39	58.35
1903,	5.03	5.49	4.87	4.59	0.45	11.76	7.85	4.88	....	....	....	....	....
1910,	....	[illegible]	0.83	5.74	2.78	3.87	0.45	2.78	6.54	2.04	2.73	2.29	....
1911,	2.93	1.66	2.93	3.42	1.56	7.77	2.88	6.77	1.85	7.23	2.93	2.81	44.73
1912,	1.16	2.44	6.83	3.67	4.20	2.58	2.72	4.94	5.96	3.68	2.47	[illegible]	45.42
1913,	4.22	2.13	6.41	6.28	3.33	1.81	2.50	5.01	4.39	5.41	3.06	[illegible]	46.58
1914,	3.87	2.62	2.30	....	2.51	3.01	4.58	2.91	....	1.47	1.63	[illegible]	....
1915,	5.74	4.74	1.15	2.41	3.27	1.94	2.90	9.30	3.03	3.17	1.75	[illegible]	42.13
Means,	3.63	3.62	3.72	3.10	3.74	4.22	4.28	4.52	3.51	3.32	3.30	3.5	44.39

Blooming Grove, Pike Co.—(Elevation 1,000 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1865,	....	....	....	....	8.95	8.40	4.20	4.80	1.80	3.45	4.40	4.15	....
1866,	1.26	4.85	1.65	2.10	3.30	8.30	2.30	3.17	3.10	2.45	6.20	2.40	41.08
1867,	1.70	4.60	3.10	3.32	11.00	3.70	2.90	9.60	0.40	3.15	2.10	2.34	47.91
1868,	2.68	1.28	3.30	4.30	8.90	3.55	3.75	5.60	4.90	2.05	5.10	1.95	47.36
1869,	1.50	3.68	5.21	1.72	5.10	4.30	5.20	1.20	4.30	9.70	3.51	4.96	50.38
1870,	4.24	3.67	3.93	4.71	2.00	....	2.50	4.50	1.20	2.40	3.20	1.38	....
1871,	2.13	3.04	6.49	3.80	2.50	2.15	4.50	11.10	1.60	1.85	4.81	2.16	46.13
1872,	0.60	1.03	1.40	2.37	4.10	6.10	4.30	4.80	5.00	3.70	3.26	2.38	39.04
1873,	3.62	2.00	4.14	2.70	2.40	1.90	5.60	7.80	2.70	7.70	2.50	3.18	46.24
1874,	0.84	2.27	1.20	6.90	1.30	3.70	7.20	0.80	3.80	2.30	1.50	0.80	32.61
1875,	2.50	2.50	4.20	2.55	0.70	2.50	4.40	9.10	0.60	2.90	1.90	2.10	35.95
1876,	0.50	1.01	1.95	1.16	3.10	1.18	5.30	0.10	4.30	0.60	2.80	2.00	24.00
1877,	0.60	0.80	5.00	2.40	1.60	1.20	3.10	2.80	3.70	6.20	7.00	1.25	35.65
1878,	3.65	2.85	1.20	0.70	3.20	1.40	4.40	2.00	4.60	1.80	5.20	6.40	37.40
1879,	2.02	2.96	1.74	2.60	1.70	3.50	4.00	4.20	3.80	0.80	0.93	4.75	33.00
1880,	2.60	2.30	2.30	1.90	1.24	3.50	6.20	1.50	1.70	2.50	3.10	0.98	29.82
1881,	1.95	4.30	7.60	1.95	2.00	5.20	1.30	1.40	0.90	3.50	1.80	3.35	35.25
1882,	2.51	1.33	3.70	1.60	3.70	4.10	6.20	8.10	5.30	3.00	2.05	0.93	42.52
1883,	2.20	2.40	1.16	2.10	3.40	6.10	6.10	1.50	1.90	3.50	0.58	1.70	32.64
1884,	3.06	2.87	5.20	2.90	3.30	3.50	8.50	4.70	2.00	2.90	5.00	3.40	47.33
1885,	2.50	3.05	0.95	2.22	2.00	1.60	2.30	9.20	1.00	7.70	5.10	2.10	39.72
1886,	4.95	3.70	5.30	3.90	5.80	3.20	4.10	5.20	3.80	2.90	6.95	2.94	52.74
1887,	2.50	4.88	3.75	4.25	5.20	5.30	10.90	5.20	2.00	2.40	2.90	6.20	55.48
1888,	2.60	2.50	4.10	2.80	3.20	3.50	6.60	7.70	....	....	....	....	....
1889,	4.30	3.66	3.60	6.70	5.40	6.70	11.00	4.70	8.30	6.10	8.90	3.00	72.36
1890,	2.20	4.50	8.50	3.10	8.30	4.80	6.20	9.10	4.40	8.30	0.60	4.10	64.10
1891,	5.40	6.20	5.10	3.30	1.90	2.80	6.20	5.90	1.60	2.30	5.00	5.60	51.30
1892,	6.50	0.80	2.80	1.90	6.50	13.00	4.20	6.80	3.60	0.40	4.40	0.94	51.84
1893,	3.41	5.60	4.16	3.71	6.72	1.20	2.54	5.75	2.61	1.51	3.95	3.30	44.46
1894,	2.50	3.40	1.11	2.75	6.10	3.51	3.66	1.62	4.80	6.42	2.91	4.15	42.93
1895,	3.92	3.47	1.47	5.21	2.74	2.99	4.18	2.80	1.35	....	....	....	....
1896,	....	7.97	7.98	0.99	2.98	2.49	5.80	2.71	6.03	3.81	6.40	1.18	....
1897,	3.25	3.59	3.59	4.01	6.87	3.30	9.59	4.56	3.56	....	....	....	....
Means,	2.73	3.22	3.65	3.02	4.16	4.02	5.12	4.85	3.15	3.61	3.80	2.87	44.20

Note: 1865-70 station located at Nyces, 3 miles west of Blooming Grove.

Bloomsburg, Columbia Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1892,	....	....	....	....	....	....	....	....	....	....	....	0.94	....
1893,	1.61	6.10	2.49	3.34	7.07	2.93	3.55	3.07	2.65	1.18	1.44	1.41	36.84
1894,	1.89	2.22	0.31	4.58	10.02	2.25	1.97	2.33	....	....	....	....	....

Bloserville, Cumberland Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1912,	1.66	2.14	9.26	6.74	6.05	7.93	6.75	4.33	8.06	1.59	2.35	3.25	60.11
1913,	3.38	1.53	5.38	4.15	4.86	1.04	2.71	1.68	4.52	8.90	2.04	3.45	43.64
1914,	5.43	3.04	2.32	5.34	3.66	4.69	8.94	6.08	1.03	1.27	1.61	4.63	48.04
1915,	7.85	4.61	1.26	2.50	4.58	6.84	6.77	14.30	3.74	3.28	2.54	4.70	61.96

Blue Knob, Blair Co.—(Elevation 2,500 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	....	....	....	4.81	10.52	2.30	6.20	2.20	4.70	4.70	9.70	0.58	....
1890,	2.09	3.66	5.04	5.50	6.50	4.50	1.60	6.00	0.65	1.73	0.78	8.63	46.68
1891,	3.45	2.86	5.61	1.80	0.31	6.30	0.67	5.60	3.10	3.30	2.29	2.00	36.79
1892,	5.41	4.03	4.47	3.35	6.44	5.41	5.10	3.83	3.63	0.88	5.33	4.37	52.25
1893,	4.60	6.59	1.94	6.20	9.20	2.49	3.70	3.58	2.76	6.68	2.79	4.08	54.51
1894,	2.46	4.97	2.49	3.78	14.57	1.67	1.69	2.37	5.26	2.81	3.18	4.04	49.26
Means,	3.60	4.32	3.91	4.24	7.92	3.78	3.16	3.93	3.35	3.32	4.01	3.95	49.60

Bradford, McKean Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1910,	5.21	4.51	0.62	4.62	3.50	1.60	4.60	1.89	5.89	3.83	3.30	2.47	41.43
1911,	3.88	3.06	2.79	3.17	2.02	3.78	....	....	....	....	....	....	....

Brookville, Jefferson Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1885,	4.53	1.60	1.52	3.16	7.34	3.63	5.47	13.28	2.91	5.68	3.72	2.64	55.48
1886,	3.79	1.39	1.91	2.31	1.79	1.63	1.79	1.16	3.13	1.11	4.42	1.80	26.23
1887,	2.12	5.50	1.93	2.45	2.13	2.51	2.18	3.20	3.19	1.06	3.41	2.64	32.32
1888,	4.17	1.06	2.03	2.44	2.12	1.60	....	....	....	1.24	2.52	2.23	....
1889,	2.94	2.74	2.30	5.28	6.09	9.36	4.13	2.82	3.40	2.36	3.72	2.37	47.10
1890,	2.56	2.30	2.19	2.90	7.32	2.26	2.08	4.70	5.47	6.63	2.58	3.30	44.29
1891,	2.86	4.94	4.13	2.47	1.59	4.52	6.05	3.43	1.33	1.39	4.55	3.98	41.24
1892,	3.48	3.00	3.72	1.74	7.17	6.30	3.63	1.74	2.48	0.48	2.86	1.65	38.25
1893,	2.38	7.03	2.44	4.83	5.02	4.23	4.73	2.81	2.06	2.49	2.19	3.38	43.59
1894,	2.77	2.59	1.34	3.00	6.35	2.03	2.18	0.40	8.12	2.38	1.39	4.48	37.03
1895,	3.17	0.99	2.33	3.33	1.71	3.79	3.06	2.43	3.37	0.76	3.96	3.56	32.46
1896,	0.80	2.82	2.47	2.28	1.51	4.42	10.91	3.58	5.55	3.19	3.13	1.84	42.50
1897,	2.04	1.49	4.95	1.85	1.71	5.19	9.97	3.29	2.85	0.53	5.36	4.82	44.05
1898,	5.22	1.69	7.42	2.35	4.16	2.95	2.02	5.92	1.46	4.47	3.09	2.04	42.79
1899,	2.70	1.71	3.73	1.96	5.39	4.89	5.52	1.68	4.92	2.48	1.67	3.87	40.62
1900,	1.84	4.54	3.66	1.47	2.33	3.25	6.08	3.45	2.49	3.33	4.94	1.56	38.94
1901,	1.68	0.74	1.78	5.82	5.05	3.98	2.73	8.61	2.47	1.08	3.94	3.32	41.20
1902,	3.04	2.65	3.64	3.40	3.68	6.80	7.03	0.94	2.34	2.93	1.70	4.96	43.10
1903,	3.46	4.24	5.62	4.20	1.44	5.10	6.32	5.70	2.44	3.50	4.06	2.20	48.28
1904,	3.90	1.70	6.89	6.14	3.90	3.34	5.89	3.18	1.06	2.69	0.76	3.10	41.95
1905,	3.24	1.50	4.36	2.60	2.52	6.14	7.46	3.97	4.12	5.48	3.72	4.76	49.87
1906,	3.08	0.76	3.20	....	....	....	....	....	....	....	....	....	....
1910,	....	....	....	....	....	....	....	....	....	....	2.34	....	....
1911,	....	2.92	2.06	1.66	0.77	3.59	1.34	11.78	7.36	4.78	2.19	1.80	....
1912,	1.99	1.26	1.80	2.51	1.51	2.03	6.93	7.72	3.97	3.60	2.00	2.14	37.46
1913,	3.20	0.88	5.02	2.90	3.75	3.62	4.36	0.95	1.57	5.20	3.00	0.95	35.40
1914,	4.22	2.00	2.08	....	....	3.90	....	....	....	1.82	1.33	4.47	....
1915,	4.60	3.06	1.07	0.90	3.41	4.97	6.33	5.90	2.65	2.69	2.50	4.31	42.39
Means,	3.08	2.47	3.15	2.96	3.59	4.07	4.92	4.28	3.37	2.80	3.00	3.01	40.70

Browers Lock, Montgomery Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1880,	1.63	2.42	4.22	2.94	0.86	3.27	8.32	2.27	2.52	1.79	1.98	4.67	36.89
1881,	4.09	4.81	4.87	1.03	3.58	7.62	1.05	0.88	1.76	2.49	2.70	3.41	38.29
1882,	5.46	3.65	3.77	2.00	5.51	3.42	2.06	3.33	7.34	1.99	1.43	1.75	41.71
1883,	3.83	4.28	1.92	3.30	1.84	8.31	3.07	4.85	2.68	3.91	1.70	3.50	43.19
1884,	6.24	5.95	5.20	2.62	3.54	5.52	4.23	3.20	0.39	2.84	3.29	6.25	49.27
1885,	3.91	5.07	0.98	1.98	3.39	1.16	2.11	5.24	2.28	4.18	4.57	3.31	38.18
1886,	4.31	4.98	3.93	3.00	5.70	4.35	5.22	1.93	0.99	2.33	4.01	2.39	43.64
1887,	4.06	4.55	2.70	2.89	2.90	5.76	6.56	2.51	3.72	1.47	1.63	4.58	43.32
1888,	3.55	4.03	4.35	1.90	3.01	1.04	2.71	5.34	4.74	2.60	3.58	0.77	37.62
1889,	3.79	1.91	3.50	3.72	6.42	3.87	11.93	5.47	6.90	5.10	7.00	1.55	61.06
1890,	2.30	3.83	6.13	1.80	6.37	2.08	3.33	4.02	2.54	5.34	0.96	2.37	41.07
1891,	5.94	4.50	6.65	2.07	2.15	2.67	8.74	7.09	2.51	3.08	1.36	3.55	50.31
1892,	4.91	0.71	5.49	2.06	4.39	2.62	4.04	3.54	2.23	0.33	6.39	2.06	38.75
1893,	2.48	5.34	2.72	4.84	4.08	2.22	2.35	3.96	3.41	3.42	4.81	3.13	42.76
1894,	1.85	4.11	1.93	2.46	12.11	3.66	3.83	1.24	9.27	5.60	2.73	3.42	52.21
1895,	4.82	1.08	3.42	4.94	3.17	3.78	2.83	2.29	0.47	2.48	3.00	2.94	35.22
1896,	1.27	6.65	5.00	1.40	3.37	3.51	5.36	0.74	8.57	3.47	3.56	0.60	43.68
1897,	2.00	4.34	2.04	3.38	7.00	4.29	7.13	2.41	1.84	2.37	5.23	4.32	46.35
1898,	4.39	4.05	2.93	3.60	5.87	3.10	3.10	6.13	1.82	4.92	6.64	3.93	50.48
1899,	4.84	5.22	6.65	1.60	2.14	5.06	2.29	5.28	6.30	1.40	2.89	1.63	45.30
1900,	3.81	5.47	3.75	1.92	3.93	3.88	4.79	4.15	2.55	2.17	1.67	2.18	40.27
1901,	3.11	0.95	4.99	4.99	4.58	2.77	5.14	6.50	3.13	1.33	3.02	7.68	48.19
1902,	3.56	7.58	3.80	3.12	2.03	7.06	3.83	3.04	5.91	6.39	2.11	7.20	55.61
1903,	3.70	5.77	3.66	3.51	0.75	7.19	3.76	4.99	2.96	5.97	1.17	2.75	46.13
1904,	3.88	1.91	4.10	1.66	3.27	2.80	3.24	5.26	4.81	4.86	2.27	3.30	41.36
1905,	4.50	2.83	3.59	4.28	1.24	3.29	4.80	10.24	3.01	4.63	2.32	3.10	47.83
1906,	3.23	3.07	3.78	4.33	4.24	7.31	2.67	8.54	1.45	6.00	1.59	4.60	50.81
1907,	3.72	2.33	3.50	2.73	4.03	6.18	3.42	4.36	9.49	5.13	7.28	4.95	57.62
1908,	1.54	5.73	3.96	2.31	4.86	2.36	4.96	4.01	1.50	1.48	1.22	4.10	38.03
1909,	2.17	4.42	3.59	4.47	2.70	3.93	1.85	1.40	1.98	1.40	1.78	4.59	34.28
1910,	4.69	3.67	1.02	4.63	2.30	4.16	1.24	3.61	2.36	3.04	2.14	1.37	34.23
1911,	2.90	1.99	2.94	3.57	2.87	6.48	2.61	10.56	3.04	3.22	6.25	3.68	49.10
1912,	2.18	2.54	7.70	3.24	3.28	2.35	4.00	5.69	5.90	4.28	3.86	4.81	49.90
1913,	3.90	2.85	4.22	7.68	3.89	2.93	2.56	4.12	2.28	5.55	2.47	2.40	44.85
1914,	4.33	2.01	2.37	2.98	3.70	2.70	6.37	2.39	0.91	1.42	2.37	5.02	36.57
1915,	6.90	6.41	0.78	2.14	5.53	2.65	5.60	7.56	1.57	2.57	1.91	4.49	48.00
Means,	3.72	3.93	3.78	3.09	3.90	4.04	4.19	4.39	3.48	3.36	3.11	3.51	44.50

Butler, Butler Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1899,	....	2.39	5.29	1.36	4.39	3.96	3.87	3.46	2.20	2.24	2.01	4.19	....
1900,	3.21	4.01	3.24	1.47	4.67	8.08	7.52	4.20	1.45	2.53	5.36	1.79	42.53
1901,	2.83	1.90	5.11	7.56	5.43	7.43	3.36	9.12	3.29	0.69	....	....	....
1903,	2.55	3.54	4.38	2.93	2.85	9.29	6.16	6.49	1.28	3.48	3.43	2.10	48.48

California, Washington Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1901,	....	....	....	....	....	....	....	....	....	0.56	2.25	4.24	....
1902,	2.03	1.52	3.58	5.00	2.12	3.85	7.33	1.86	2.23	4.21	1.84	4.33	39.89
1903,	2.40	4.95	3.98	3.23	1.78	6.70	3.56	2.36	2.72	2.73	2.08	1.43	37.92
1904,	2.78	1.90	4.82	3.99	3.68	3.09	2.63	5.32	1.31	1.46	0.44	2.09	33.51
1905,	2.50	1.73	4.09	3.68	2.68	7.75	6.29	3.09	2.57	4.84	2.27	3.70	44.19
1906,	1.77	1.07	4.05	1.87	3.53	4.00	4.91	8.10	1.58	3.30	0.84	4.42	39.44
1907,	5.03	1.68	7.14	2.13	3.07	4.36	4.56	3.90	4.18	1.96	1.63	3.81	43.50
1908,	1.30	3.84	6.67	....	....	....	....	....	....	0.18	0.55	1.96	....
1909,	....	....	....	....	1.98	....	....	....	1.35	3.00	....	....	....
1910,	....	....	T.	....	1.15	4.20	....	....	....	1.06	1.91	....	....
1911,	....	....	1.45	3.72	1.20	....	....	....	....	....	2.30	3.53	....
1912,	2.37	1.85	4.63	3.38	2.13	4.24	7.87	4.12	....	1.60	2.15	2.00	....
1913,	6.09	1.83	3.68	3.13	5.19	1.80	2.50	0.77	....	3.15	3.65	0.69	....
1914,	5.73	....	1.56	....	1.57	3.65	....	....	1.58	2.01	2.78	....	....
1915,	3.17	....	1.36	1.06	7.45	5.38	4.52	2.87	....	3.07	....	....	....
Means,	3.20	2.26	3.92	3.12	2.89	4.46	4.79	3.60	2.19	2.37	1.90	2.93	37.63

Cameron, Cameron Co.—(Elevation 964 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	1.28	3.05	3.12	1.70	3.56	5.75	5.89	1.85	6.23	3.83	2.49	1.22	39.97
1897,	1.45	1.76	3.40	2.70	3.85	2.72	6.81	1.70	2.55	0.86	4.25	2.69	34.75
1898,	4.39	1.17	6.71	2.72	3.94	6.36	3.72	6.49	1.23	6.23	2.83	1.94	47.73
1899,	2.00	2.58	3.84	1.86	....	....	....	....	....	....	....	....	....

Canonsburg, Washington Co.—(Elevation 936 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1840,	....	....	3.60	2.37	4.17	....	3.77	3.06	....	2.97	....	....	....
1844,	....	....	....	1.68	5.21	....	....	....	....	....	....	....	....
1845,	2.78	1.05	2.29	....	....	....	....	....	....	....	....	....	....
1856,	3.25	1.17	2.13	3.00	2.83	3.18	1.05	1.37	1.68	1.39	2.11	1.54	24.70
1857,	1.66	1.91	1.29	2.17	5.74	5.49	4.45	4.49	2.91	3.61	3.73	3.50	40.85
1858,	3.72	1.76	0.30	2.93	7.58	4.58	2.32	1.27	1.34	2.15	2.82	4.10	34.87
1859,	1.35	3.42	3.97	6.83	3.35	3.38	3.22	5.40	3.66	1.16	1.26	3.28	40.28
1861,	4.92	3.06	1.53	3.76	2.05	3.83	5.20	1.27	2.48	4.52	3.27	1.45	37.34
1862,	9.92	1.50	4.75	4.55	1.44	....	....	....	....	....	....	....	....
1863,	3.00	4.14	3.15	2.47	1.21	2.78	2.40	1.85	4.40	2.35	2.76	1.49	32.00
1864,	1.62	3.17	3.04	3.64	2.34	4.33	2.83	4.68	8.55	0.94	3.98	3.76	41.88
1865,	2.83	1.38	5.10	2.20	4.68	6.65	5.61	4.20	4.60	3.07	0.70	2.90	43.92
1866,	1.76	2.54	3.24	2.97	1.07	4.64	3.71	3.45	5.85	4.06	3.44	3.13	39.86
1867,	0.97	2.86	4.01	1.37	5.10	1.97	3.60	1.84	1.15	2.85	1.19	2.02	28.93
1868,	2.67	1.03	3.76	2.54	3.16	0.85	4.08	3.33	7.96	1.52	2.96	1.69	35.55
1869,	4.64	2.06	3.87	0.89	5.67	2.84	4.21	1.43	5.69	2.00	2.35	2.32	37.96
1870,	4.62	3.46	3.25	2.61	3.41	2.83	3.46	3.81	2.04	3.06	1.06	1.78	35.39
1871,	2.30	1.87	1.92	1.83	3.13	3.59	3.25	5.31	0.30	1.79	1.92	1.60	29.11
1872,	1.08	0.50	1.04	1.34	1.69	2.83	6.48	0.98	3.26	4.59	1.26	2.70	26.75
1873,	2.87	2.57	3.02	2.03	4.72	3.89	2.55	4.77	1.99	6.28	2.17	3.51	40.37
1874,	3.35	3.22	2.44	5.91	1.16	1.72	9.88	1.37	3.80	0.10	3.60	4.30	40.85
1875,	2.03	1.58	3.60	2.33	1.90	2.00	7.04	1.78	3.19	2.49	2.64	3.70	34.28
1876,	2.25	2.96	3.77	0.99	2.40	2.38	5.61	2.38	6.07	1.07	1.84	1.60	33.32
1877,	....	0.70	3.78	2.73	1.85	4.76	3.35	3.03	0.74	2.28	3.97	1.20	....
1878,	4.63	1.70	2.21	4.00	1.30	4.63	....	....	....	....	....	....	....
1889,	....	....	....	....	....	....	....	1.64	3.41	2.87	4.91	3.30	....
1890,	5.01	5.55	4.48	4.24	6.20	1.82	3.93	6.89	....	....	1.91	....	....
Means,	3.18	2.30	3.02	2.82	3.29	3.41	4.14	3.03	3.60	2.60	2.54	2.61	35.71

Carlisle, Cumberland Co.—(*Elevation 480 feet*)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1839,	3.92	2.91	0.79	......	4.18	6.94	......	......	......	0.82	1.79	5.20	......
1840,	2.06	1.79	2.12	4.50	2.42	2.07	......	......	......	......	......	......	......
1841,	......	......	......	4.90	3.43	4.07	......	......	......	1.33	3.06	5.69	......
1855,	......	......	......	......	......	......	......	......	......	......	......	0.65	......
1856,	2.15	0.90	1.07	......	0.73	4.18	3.77	2.03	1.57	2.15	2.10	1.90	......
1857,	3.08	0.86	1.21	2.74	7.75	10.88	......	......	......	......	......	......	......
1858,	......	......	......	......	......	......	2.00	4.55	3.23	3.25	4.70	3.57	......
1859,	2.30	2.47	5.49	5.67	1.37	2.95	2.47	2.79	9.50	......	......	......	......
1868,	......	......	......	......	......	......	......	......	......	......	......	3.80	......
1869,	3.95	3.60	5.75	1.80	6.10	6.00	3.40	1.10	1.90	6.30	2.70	8.10	50.70
1870,	5.40	4.35	3.95	5.90	6.30	7.80	5.90	2.80	6.00	2.90	1.80	2.35	55.45
1871,	3.05	2.55	3.89	2.10	3.10	3.65	4.50	9.40	2.65	3.30	3.35	1.80	43.34
1872,	0.90	1.95	1.35	3.35	4.05	3.90	2.60	4.51	2.95	5.40	3.00	3.30	37.79
1873,	3.65	4.00	3.85	3.80	3.90	1.60	2.55	9.55	2.20	6.10	2.60	2.45	46.25
1874,	4.05	5.42	1.80	6.35	1.95	1.50	7.10	1.40	3.75	3.75	2.26	2.45	41.77
1875,	2.45	2.40	4.90	2.85	0.60	2.70	5.96	6.06	2.50	3.45	3.00	2.50	39.37
1876,	1.67	3.17	6.00	3.00	1.40	4.75	6.73	5.10	11.34	1.20	3.27	1.73	49.36
1877,	3.60	0.50	6.90	3.35	1.10	5.25	1.96	1.70	4.45	3.70	8.27	0.05	40.73
1878,	4.65	1.60	3.00	2.93	3.90	3.20	2.00	5.20	2.00	5.12	2.57	......	......
1888,	3.30	3.37	2.91	2.79	5.14	3.25	3.43	......	3.29	3.19	2.88	2.77	......
1889,	3.49	1.68	1.91	4.56	4.52	4.59	......	2.49	......	3.75	9.03	2.44	......
1890,	2.16	4.12	5.87	3.19	5.47	2.90	1.91	9.65	4.12	5.72	0.81	4.20	50.12
1891,	4.07	4.22	6.52	1.18	2.17	3.46	6.03	5.53	1.05	3.51	1.70	3.66	43.10
1892,	5.64	1.15	4.19	2.77	5.98	4.59	......	1.97	4.85	0.06	3.52	1.45	......
1893,	2.41	4.56	1.44	3.71	5.49	3.42	1.57	5.82	2.56	0.97	3.92	1.60	37.47
1894,	1.79	4.53	1.14	3.61	8.12	2.05	1.96	2.92	9.45	4.58	2.63	3.38	46.16
1895,	3.74	1.39	3.67	3.75	2.34	2.62	1.31	4.70	1.06	0.64	2.46	3.49	31.17
1896,	1.72	6.41	4.20	2.36	2.92	4.27	4.64	0.78	2.75	2.78	3.59	0.70	37.12
1897,	1.77	3.42	3.90	2.92	6.54	1.52	4.42	5.13	2.97	2.06	4.07	3.29	41.99
1898,	4.23	2.09	4.76	2.52	6.64	1.24	3.68	9.62	1.22	6.07	4.39	2.92	49.38
1899,	3.41	5.49	3.89	1.14	6.36	4.38	2.60	10.09	4.05	2.98	2.27	2.77	49.43
1900,	2.34	4.65	4.31	1.37	1.17	3.82	4.20	......	1.09	2.74	3.38	1.43	......
1901,	1.99	0.82	2.09	1.46	......	......	......	......	......	......	......	......	......
Means,	3.07	2.96	3.56	3.23	3.97	3.92	3.61	4.79	3.70	3.25	3.30	2.84	42.22

Cassandra, Cambria Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1894,	....	....	....	3.78	14.57	1.67	1.69	2.37	5.25	2.81	3.05	4.04	....
1895,	4.71	1.45	3.22	3.61	4.66	3.65	4.85	2.27	3.69	1.11	2.21	3.68	39.11
1896,	2.10	4.38	5.24	2.89	2.33	6.33	6.75	3.58	6.77	2.89	3.10	1.40	47.82
1897,	3.18	3.43	3.70	3.56	4.18	2.88	3.44	2.40	2.86	0.39	4.88	3.75	38.65
1898,	3.79	1.85	5.22	1.83	6.35	3.11	3.73	6.49	1.61	7.12	2.51	2.61	46.22
1899,	2.87	3.11	4.61	1.93	4.78	3.88	4.36	3.77	3.70	0.79	3.19	3.63	40.62
1900,	2.96	4.00	2.98	2.77	1.43	7.09	6.73	4.41	1.16	2.99	4.20	1.16	41.88
1901,	2.54	2.75	3.49	5.34	5.83	4.21	3.71	5.42	3.13	0.70	3.73	3.73	44.58
1902,	3.14	4.75	3.75	5.44	1.61	5.72	8.42	2.14	2.02	5.73	1.36	4.16	48.24
1903,	2.89	4.42	3.47	2.45	3.28	5.59	4.56	4.15	1.85	3.00	3.99	2.71	42.36
1904,	3.89	3.41	3.58	1.58	3.11	4.74	6.05	3.20	2.30	1.87	1.20	3.13	38.06
1905,	2.97	1.30	3.97	2.74	2.80	7.58	3.80	2.04	2.15	3.42	2.73	3.61	39.11
1906,	2.35	1.70	4.40	1.62	3.04	4.74	3.09	9.23	1.35	2.22	1.29	3.26	38.29
1907,	3.92	1.69	7.05	2.02	2.43	6.90	4.34	5.82	3.33	3.19	2.60	3.85	47.14
Means,	3.18	2.94	4.21	2.97	4.31	4.51	4.68	4.09	2.94	2.73	2.86	3.20	42.64

Cease Mills, Luzerne Co.—(Pikes Creek Intake)—(Elevation 1,052 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1910,	4.80	3.77	0.80	4.37	3.92	4.30	0.97	2.71	5.17	1.31	1.88	0.87	34.87
1911,	3.03	2.13	2.11	4.00	1.67	5.12	2.96	7.67	3.83	5.02	2.99	2.80	43.83
1912,	1.70	2.30	4.41	4.35	2.53	1.77	2.54	3.26	8.14	3.13	3.88	4.08	41.59
1913,	3.98	1.76	6.17	5.70	3.00	2.10	4.28	2.84	3.89	3.94	2.63	3.01	43.30
1914,	2.32	3.00	3.08	5.06	4.00	3.15	4.37	6.62	0.77	2.11	1.29	4.17	39.94
1915,	6.27	4.50	0.99	2.45	4.70	5.18	2.72	7.69	2.24	1.93	1.63	3.82	44.02
Means,	3.68	2.91	2.93	4.32	3.30	3.60	2.97	5.13	4.01	2.91	2.38	3.12	41.26

Note: This record furnished by The Spring Brook Water Supply Company, Wilkes-Barre, Pa.

Catawissa, Columbia Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1878,	....	....	2.81	2.85	4.50	4.11	3.90	2.41	2.99	4.14	2.67	4.25	....
1879,	1.88	1.79	1.68	3.25	1.54	3.18	4.50	2.93	3.00	1.11	2.20	4.00	31.06
1880,	2.39	3.40	3.08	2.65	2.11	3.66	4.66	5.42	2.87	1.77	2.49	1.40	35.90
1881,	3.62	3.23	4.48	1.16	2.81	8.08	1.17	1.07	0.45	2.06	2.80	4.85	35.72
1882,	4.32	3.96	3.95	2.65	5.63	4.15	3.51	4.39	3.38	1.58	1.19	0.72	39.49
1883,	3.35	2.24	2.54	2.94	3.01	8.07	4.63	2.26	2.41	3.38	1.42	1.91	38.16
1884,	3.17	3.61	4.08	2.92	3.38	3.63	2.83	2.27	2.66	3.69	2.98	3.77	38.79
1885,	4.13	3.13	1.04	2.43	2.68	2.22	3.26	7.36	0.94	5.65	4.65	2.33	39.82
1886,	4.50	2.75	4.13	2.37	7.19	3.08	3.62	1.59	4.20	2.84	5.82	2.36	44.45
1887,	2.68	3.87	....	....	3.40	4.45	1.70	4.12	5.14	0.56	1.66	2.00	....
1888,	3.58	2.01	2.59	2.91	5.20	2.78	2.48	6.28	3.74	3.82	3.79	3.97	43.17
1889,	3.22	1.61	2.99	4.42	....	....	6.62	6.17	4.47	2.82	6.95	2.41	....
1890,	2.06	3.41	....	2.92	7.41	2.72	2.68	5.44	2.81	5.99	1.17	4.17	....
1891,	5.26	....	....	....	....	....	....	....	....	....	....	....	....
1909,	....	....	....	....	....	....	0.76	1.98	2.34	2.52	1.21	2.11	....
1910,	4.59	3.95	0.60	6.04	4.05	4.44	1.50	2.02	4.50	1.30	2.99	2.78	38.76
1911,	3.44	1.97	2.53	3.62	1.22	3.80	5.85	8.43	2.71	4.80	2.20	2.90	43.47
1912,	1.52	1.86	4.82	4.45	4.21	2.15	2.90	4.87	7.29	2.13	2.72	3.43	42.35
1913,	3.68	1.79	5.28	5.07	2.80	1.75	3.98	1.63	4.10	4.06	2.04	3.52	39.70
1914,	2.55	2.66	2.74	4.52	2.99	2.68	4.36	4.19	1.17	1.80	0.91	4.33	34.89
1915,	5.88	3.99	1.22	2.88	3.87	4.35	2.88	7.40	2.69	1.41	1.72	4.61	42.93
Means,	3.46	2.85	2.97	3.33	3.78	3.85	3.59	4.11	3.19	2.87	2.68	3.07	39.55

Cedar Run, Lycoming Co.—(Elevation 760 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	1.80	3.17	2.35	1.30	1.90	5.23	5.05	1.57	4.98	4.21	....	0.85	....
1897,	1.48	1.87	2.16	2.44	2.26	1.18	3.96	3.88	3.30	1.42	3.56	1.90	29.40
1898,	6.25	1.60	3.50	3.42	1.35	6.00	1.95	1.22	2.25	4.40	2.05	3.75	37.74
1899,	3.50	4.95	4.48	0.50	2.27	....	0.81	2.43	2.15	2.30	0.75	0.85	....
1900,	3.75	1.47	1.20	1.10	0.90	....	....	....	....	....	....	....	....
Means,	3.36	2.61	2.74	1.75	1.74	....	....	....	....	....	....	....	....

Center Hall, Center Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1895,	*4.36	*0.48	*1.25	*1.75	*2.26	5.70	3.60	4.70	2.10	1.20	2.33	3.94	33.67
1896,	2.18	*4.49	3.77	1.41	2.00	4.06	5.66	1.26	6.23	3.92	3.11	1.63	39.72
1897,	2.20	4.17	5.08	3.84	5.79	4.03	4.96	2.43	4.06	1.78	5.43	4.19	47.96
1898,	3.89	1.16	5.16	2.60	4.87	2.89	2.86	7.37	1.26	6.70	2.60	3.90	45.26
1899,	2.07	4.54	4.42	0.88	5.66	3.05	2.36	3.79	3.90	2.12	1.96	3.87	38.62
1900,	1.95	4.09	3.58	1.52	1.92	3.70	3.48	2.56	0.88	*3.56	*4.42	*1.96	33.62
1901,	*2.06	*0.92	*3.86	*4.83	*6.20	*3.18	5.45	11.30	2.73	0.71	2.46	*6.20	49.90
1902,	1.50	*3.11	*5.02	*3.02	*1.43	*6.49	*6.70	*1.41	*3.81	5.20	0.80	*4.86	43.35
1903,	*3.25	3.21	3.90	3.35	1.10	7.59	3.91	6.61	3.19	3.75	1.89	1.84	43.60
1904,	2.90	2.07	4.91	5.18	2.38	3.79	5.72	3.01	1.26	*2.08	*0.49	1.82	35.11
1905,	2.07	1.19	2.52	2.81	2.87	4.63	3.73	4.76	2.21	3.50	2.43	4.21	36.93
1906,	2.10	1.91	4.39	2.25	1.90	1.97	6.78	3.64	2.60	3.98	1.33	2.42	35.27
1907,	2.14	*1.51	*4.40	*2.58	2.19	5.23	1.54	5.19	5.06	1.88	2.64	3.23	37.59
1908,	1.93	4.25	*5.28	*3.52	*8.82	*1.57	*4.69	2.60	1.25	1.40	1.01	2.80	39.12
1909,	2.31	4.59	2.18	6.65	2.74	5.12	1.53	2.58	2.46	2.39	0.91	3.10	36.56
1910,	5.44	2.05	0.03	7.31	2.89	4.84	4.09	2.36	5.70	1.26	1.28	2.13	39.38
1911,	3.20	1.50	2.71	2.06	6.10	5.59	2.00	8.19	5.70	6.47	1.63	1.15	46.30
1912,	0.47	2.39	4.37	3.72	3.55	2.01	2.82	3.09	4.80	1.84	2.90	1.12	33.08
1913,	2.80	1.04	3.51	2.49	*4.00	3.26	*5.68	*1.15	1.78	5.03	3.00	1.50	35.24
1914,	*3.67	2.30	1.98	4.05	3.34	4.21	3.05	1.54	0.08	2.38	1.44	2.89	30.88
1915,	3.67	2.09	0.88	0.51	3.96	4.08	5.41	4.97	2.05	2.32	1.87	....	....
Means,	2.67	2.58	3.49	3.16	3.62	4.14	4.10	4.02	3.00	3.02	2.19	2.77	38.71

Note: *Interpolated.

Chambersburg, Franklin Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1860,	......	3.67	2.09	3.97	6.34	1.36	2.56	4.86	5.14	4.99	4.18	2.94	......
1861,	3.29	1.94	2.22	......	4.21	2.28	4.01	3.62	3.64	3.54	3.54	0.34	......
1862,	......	......	......	5.46	......	......	......	......	......	......	......	......	......
1875,	......	......	......	......	1.86	4.61	5.19	5.93	2.14	2.73	3.36	1.81	......
1876,	0.51	1.50	4.20	......	1.91	2.34	2.52	3.05	7.38	1.22	2.56	1.14	......
1877,	2.57	1.62	3.43	3.30	1.50	6.59	2.06	2.26	3.12	4.67	7.59	1.37	40.07
1878,	2.54	2.76	3.31	3.87	2.78	2.71	2.10	3.89	1.58	4.39	2.91	3.95	36.79
1879,	2.06	2.42	2.90	2.08	3.40	2.83	2.33	5.10	3.60	1.76	0.72	3.96	33.16
1880,	2.38	3.24	3.45	3.07	2.52	4.81	6.68	4.76	2.61	2.94	3.65	2.79	42.90
1881,	3.47	2.61	3.75	1.90	2.12	6.30	4.28	1.33	1.35	2.80	1.36	5.06	36.33
1882,	4.56	3.97	......	......	......	......	......	......	......	......	......	......	......
1883,	1.34	4.09	3.03	2.98	2.88	5.15	4.56	2.74	3.33	3.28	1.59	3.79	38.56
1884,	3.23	4.43	4.90	1.22	4.42	5.22	5.20	2.22	0.89	2.27	1.61	4.83	40.34
1885,	3.62	3.47	0.91	3.35	1.20	2.20	0.78	5.64	0.93	4.64	1.51	1.05	28.30
1887,	......	......	......	......	......	......	......	......	......	......	1.04	4.47	......
1888,	2.12	3.95	1.72	......	5.55	2.37	2.50	5.45	......	......	2.88	......	......
1889,	......	......	......	......	......	......	......	......	4.13	3.24	5.73	2.03	......
1890,	1.80	3.90	......	1.55	5.55	......	......	......	......	5.48	1.21	......	......
1891,	2.27	2.54	......	......	......	......	......	......	......	......	......	......	......
1893,	......	......	1.53	4.49	6.24	1.80	2.12	2.61	2.30	3.85	......	......	......
1894,	1.33	......	1.17	1.96	7.94	3.17	0.84	4.79	2.82	5.44	1.28	2.65	......
1895,	3.00	1.57	2.03	2.95	2.39	9.21	1.84	5.31	0.82	1.13	1.38	1.44	33.07
1896,	1.10	2.81	4.58	0.97	3.05	7.19	4.09	0.99	2.62	1.52	4.20	0.48	33.50
1897,	1.84	4.07	3.40	2.79	6.03	1.22	4.32	6.02	3.08	2.19	5.28	1.93	42.17
1898,	2.61	1.38	4.33	1.36	4.73	0.64	3.57	7.66	1.19	5.67	3.15	3.23	39.52
1899,	1.82	4.86	4.23	1.23	5.99	5.97	3.04	4.51	4.88	1.35	2.15	2.47	42.50
1900,	1.95	3.42	3.79	1.92	1.13	2.82	3.10	4.60	0.56	2.03	3.02	0.40	28.74
1901,	1.54	0.27	2.74	9.18	......	......	......	......	......	......	......	......	......
1914,	......	......	......	......	......	......	......	......	1.30	1.33	1.86	4.33	......
1915,	6.31	4.20	1.96	1.63	4.22	4.15	2.64	6.99	3.64	2.47	2.30	4.40	44.91
Means,	2.49	2.99	2.98	2.87	3.82	3.86	3.21	4.29	2.77	3.12	2.80	2.65	37.81

Charlesville, Bedford Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	4.06	1.92	3.42	2.14	4.83	3.00	3.99	7.05	3.37	2.52	3.01	1.63	40.92
1889,	3.74	1.53	4.16	4.76	11.07	4.26	4.19	1.06	....	....	5.03	1.63	....
1890,	1.52	2.81	5.46	2.74	5.65	1.87	1.53	2.58	4.06	5.42	1.57	3.83	39.03
1891,	2.63	4.10	7.89	1.55	....	4.42	6.61	5.51	4.55	....	....	....	....

Cheat Haven, Fayette Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1912,	....	....	....	....	....	....	....	....	....	....	....	2.33	....
1913,	7.18	1.51	3.09	2.47	7.14	3.06	6.27	0.70	2.69	4.79	4.01	2.78	45.69
1914,	2.67	2.36	1.44	4.66	3.31	3.08	5.08	4.40	1.13	2.47	0.57	6.20	37.37
1915,	5.48	2.61	0.96	....	....	....	....	....	....	....	....	....	....

Chromedale (Near Media), Delaware Co.—(Elevation 196 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1848,	....	....	....	....	....	....	....	....	....	....	....	5.08	....
1849,	0.81	2.65	4.54	1.47	4.48	2.86	2.31	6.02	0.48	8.66	2.50	6.24	43.02
1850,	4.52	4.14	4.47	2.69	5.56	3.47	6.29	6.81	7.57	0.97	2.65	4.65	53.79
1851,	1.59	4.17	2.97	4.91	5.70	3.17	4.69	2.61	1.07	3.87	3.59	2.43	40.77
1852,	1.36	2.45	3.81	5.07	3.18	4.37	2.84	7.15	2.20	2.21	7.24	5.42	47.30
1853,	1.59	5.35	1.98	3.65	5.53	1.06	6.89	2.96	4.33	4.02	2.03	1.42	40.81
1854,	3.49	6.17	1.30	6.58	5.56	2.71	4.30	3.02	3.41	1.60	3.37	3.41	44.92
1855,	2.41	2.36	1.66	2.30	4.30	9.32	4.06	2.48	3.92	5.35	2.01	6.41	46.58
1856,	2.46	1.17	1.74	3.36	3.06	1.84	2.49	5.46	4.91	1.18	2.96	3.66	34.29
1857,	2.66	1.38	1.55	5.65	5.80	6.59	1.77	8.26	1.03	3.71	1.51	5.69	45.60
1858,	3.09	1.65	0.83	....	....	....	....	....	1.91	1.14	6.01	....	....
1859,	6.74	....	....	....	....	....	....	....	....	....	....	....	....
Means,	2.79	3.15	2.48	3.96	4.80	3.93	3.96	3.97	3.08	3.27	3.39	4.44	43.22

Note: These data are also in West Chester record and included in means for that station.

Claridge, Westmoreland Co.—(Elevation 1,080 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	....	....	....	....	....	....	....	6.26	1.21	2.07	1.32	4.78	....
1915,	3.91	4.35	1.60	1.30	5.48	4.55	4.87	*4.09	....	....	....	....	....

Note: *Discontinued August 31, 1915. This station maintained and operated by Water Supply Commission of Pennsylvania.

Clarion, Clarion Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	4.88	1.79	....	2.82	3.46	....	....	....	2.82	5.15	....	2.75	....
1889,	3.35	2.10	2.27	4.53	4.59	8.12	6.21	2.85	3.51	4.47	3.61	3.78	49.39
1890,	5.72	4.90	4.36	4.78	9.57	2.36	2.51	7.38	6.87	6.81	3.18	3.18	61.62
1891,	2.93	7.02	4.04	2.84	1.35	6.93	8.98	4.16	2.51	2.47	4.31	4.66	52.20
1892,	3.20	3.70	3.83	2.25	8.75	7.21	2.90	2.18	3.59	1.46	3.58	1.62	44.27
1893,	2.90	9.26	4.20	6.91	5.09	6.50	6.27	4.12	2.53	3.46	2.54	4.78	58.56
1894,	4.19	2.97	2.10	4.41	8.02	2.88	2.34	0.44	12.36	2.95	2.61	3.94	49.21
1895,	4.13	2.48	2.24	2.56	2.28	4.27	5.05	3.55	4.60	0.66	4.32	....	....
1901,	....	....	....	....	....	....	....	....	....	....	4.69	4.00	....
1902,	1.88	1.98	3.70	3.49	3.54	6.14	10.17	2.26	2.33	3.48	1.82	5.99	46.77
1903,	4.31	3.96	5.66	3.34	2.10	6.10	5.18	6.76	1.48	3.22	4.12	2.07	48.30
1904,	3.98	3.78	6.46	5.72	3.92	3.72	6.06	4.61	1.00	1.70	0.68	2.99	44.62
1905,	3.30	2.58	4.60	2.72	2.96	5.46	8.70	3.68	3.38	5.21	3.50	4.22	50.31
1906,	2.68	0.68	3.04	2.86	3.36	1.40	2.86	8.22	3.78	3.70	1.94	3.89	38.41
1907,	5.28	1.62	4.18	3.28	2.76	6.38	3.02	1,60	5.10	3.82	2.21	2.92	41.17
1908,	2.86	4.60	6.24	3.90	5.62	1.84	5.28	1.46	1.30	0.46	1.16	2.64	37.36
1909,	3.64	4.00	2.94	6.44	2.25	6.73	2.21	0.12	....	....	....	....	....
1910,	7.90	4.40	0.82	3.62	3.01	1.09	0.42	2.79	5.44	2.96	3.42	3.64	39.51
1911,	4.32	3.01	2.87	4.12	0.89	3.64	2.57	9.46	7.44	6.69	3.18	2.93	51.12
1912,	1.52	1.22	3.12	4.62	1.72	2.57	8.45	4.85	4.31	2.95	1.01	2.50	38.84
1913,	6.70	2.56	6.05	2.85	2.78	7.61	4.54	1.29	1.27	6.08	3.58	2.35	46.57
1914,	3.54	2.42	2.44	6.20	3.68	4.50	3.34	5.18	1.24	2.75	1.69	5.27	42.25
1915,	3.93	2.72	1.90	0.70	3.38	3.90	5.21	5.44	2.63	3.03	3.63	5.00	41.55
Means,	3.96	3.35	3.67	3.86	3.87	4.64	4.87	3.92	3.78	3.45	2.89	3.58	45.81

Claysville, Washington Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1904,	......	......	......	3.08	3.74	4.70	6.92	2.09	2.24	1.80	0.27	2.65	......
1905,	2.68	1.16	3.02	3.46	3.43	8.12	3.71	4.76	2.34	3.79	2.83	3.19	42.49
1906,	1.93	1.01	3.50	2.74	1.97	5.21	3.63	4.53	3.14	3.36	1.12	3.04	35.18
1907,	3.92	1.54	7.66	3.49	3.83	4.43	6.10	3.96	5.68	2.84	2.08	2.50	48.33
1908,	1.80	4.25	7.35	4.64	4.30	2.66	6.97	4.16	0.53	1.65	0.52	2.77	41.60
1909,	3.41	5.58	3.06	4.52	3.20	3.50	3.43	2.17	1.47	2.12	0.77	2.23	35.45
1910,	6.94	4.61	0.13	2.65	4.71	3.11	2.88	2.17	3.74	1.92	1.57	2.77	37.10
1911,	4.23	2.09	2.70	4.51	2.40	3.41	1.69	7.88	4.84	6.68	2.57	3.64	46.64
1912,	2.10	1.78	4.77	4.90	1.34	4.61	8.95	4.65	3.87	1.52	1.03	2.71	42.23
1913,	6.35	1.82	3.97	3.28	4.04	1.10	8.00	1.80	2.49	4.36	3.63	2.05	42.89
1914,	3.38	2.83	2.48	4.41	3.17	3.57	1.35	5.39	2.11	3.17	1.61	5.38	38.85
1915,	4.41	2.13	1.07	1.64	5.04	4.93	6.02	2.91	3.34	2.92	2.47	3.87	40.75
Means,	3.74	2.61	3.61	3.61	3.43	4.11	4.97	3.87	2.98	3.01	1.73	3.09	40.74

Clearfield, Clearfield Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1905,	2.70	1.34	4.82	2.44	3.20	6.02	......	......	......	......	......	4.29	......
1906,	2.56	0.64	4.35	3.58	2.74	2.36	......	......	......	......	......	3.37	......
1907,	4.88	1.73	6.54	1.88	2.90	5.66	......	......	......	......	......	......	......
1908,	......	......	4.35	3.59	10.25	2.72	4.11	2.72	0.83	0.49	0.91	3.22	......
1909,	2.57	5.42	3.32	6.84	......	3.07	2.52	2.11	1.25	3.26	0.98	3.54	......
1910,	5.46	4.51	0.88	......	......	......	......	......	6.74	1.17	3.30	2.75	......
1911,	4.00	2.75	2.90	3.97	1.34	3.34	1.47	6.60	5.93	4.59	......	......	......
1912,	1.65	2.56	......	......	......	......	......	......	......	......	1.42	2.37	......
1913,	8.90	1.83	4.82	......	......	......	......	......	......	......	3.43	1.62	......
1914,	4.17	1.99	3.18	4.68	3.94	3.38	2.61	4.20	0.85	2.96	1.61	5.44	39.01
1915,	6.32	4.39	1.81	0.78	4.84	4.50	5.64	4.95	3.41	4.16	1.71	4.15	46.66
Means,	4.32	2.72	3.70	3.47	4.17	3.87	3.27	4.12	3.17	2.77	1.91	3.42	40.91

Cloe, Jefferson Co.—(Elevation 1,415 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1913,	....	....	....	....	....	....	....	....	....	....	....	2.89	....
1914,	2.64	2.34	2.24	3.56	3.66	4.64	2.84	3.20	0.60	1.66	1.43	3.75	32.56
1915,	4.19	3.16	1.14	1.42	3.95	5.30	4.75	3.97	1.78	2.08	1.74	3.70	37.18

Note: This station is maintained and operated, in co-operation with the Buffalo, Rochester and Pittsburgh Railway Co., by the Water Supply Commission of Pennsylvania.

Coatesville, Chester Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	....	....	6.28	2.02	2.89	1.76	3.91	4.20	6.99	2.93	3.36	5.25	....
1889,	4.33	1.85	4.49	7.08	5.29	6.99	12.93	3.05	9.12	4.61	8.60	1.60	68.94
1890,	2.67	4.88	7.29	2.39	7.85	3.07	3.77	4.77	3.36	6.34	1.07	3.51	50.97
1891,	6.59	5.31	7.61	2.25	3.64	3.60	11.61	4.08	3.38	3.46	1.78	3.85	57.16
1892,	6.76	1.16	5.30	2.13	5.97	2.28	6.92	2.37	3.15	0.48	6.29	2.52	45.33
1893,	3.19	5.74	2.88	5.50	3.86	3.93	2.70	4.68	3.67	4.08	5.69	3.68	49.60
1894,	2.22	4.60	2.08	4.20	11.75	2.29	4.61	2.89	8.42	5.57	2.73	4.70	56.06
1895,	5.08	2.93	3.48	4.63	3.65	4.76	2.20	2.65	1.42	3.34	1.39	2.98	38.51
1896,	1.36	6.54	5.01	1.38	2.62	2.85	3.04	0.63	8.31	2.96	4.25	0.59	39.54
1897,	2.79	4.91	2.15	3.39	7.28	2.92	6.47	3.00	1.63	2.60	5.83	4.96	47.93
1898,	4.54	3.48	2.95	3.70	4.89	1.46	3.21	7.03	2.73	4.76	6.59	4.45	49.79
1899,	3.57	10.22	7.66	1.89	2.77	2.20	3.46	4.52	5.70	1.74	2.38	2.16	48.27
1900,	3.28	7.75	4.24	2.19	4.73	2.88	5.31	5.60	2.62	1.45	2.02	2.47	44.54
1901,	3.12	1.03	5.73	5.88	5.30	2.65	5.51	8.49	5.00	1.73	2.82	9.24	56.40
1902,	3.64	6.92	5.00	4.71	1.75	6.40	3.19	2.78	8.31	6.78	2.28	7.73	59.49
1903,	4.60	5.29	3.60	4.38	2.18	5.80	5.55	4.94	1.90	6.22	1.26	4.16	49.88
1904,	3.68	2.24	3.74	2.22	3.08	4.66	3.91	4.86	5.67	6.18	3.22	3.08	46.54
1905,	7.25	2.39	3.54	3.38	1.19	3.67	4.24	6.88	3.65	5.13	2.16	3.79	47.12
1906,	3.54	3.17	5.26	3.99	4.56	7.18	5.49	8.49	0.71	6.37	1.60	5.34	55.59
1907,	3.11	4.37	3.81	2.93	2.77	6.92	3.12	2.64	8.24	3.04	7.52	5.51	54.58
1908,	3.45	5.99	4.00	2.35	6.18	3.68	4.32	5.52	1.95	1.86	1.22	3.36	43.88
1909,	3.21	4.46	3.97	3.43	3.10	3.62	1.16	0.46	2.59	1.77	1.97	8.50	38.14
1910,	5.64	4.04	0.49	5.92	2.66	5.78	2.96	5.13	1.77	3.09	3.17	2.85	43.50
1911,	3.50	2.24	3.40	3.83	1.23	5.70	4.17	9.05	3.29	4.37	4.36	3.95	49.09
1912,	2.79	2.58	7.20	3.32	4.39	4.61	5.24	4.85	5.12	3.36	2.82	4.79	51.07
1913,	4.28	2.45	4.91	7.52	6.01	2.12	2.19	4.39	2.76	5.20	2.41	3.03	46.27
1914,	4.62	3.84	3.51	3.77	1.40	2.98	10.29	2.67	0.16	1.67	2.34	5.98	43.23
1915,	6.27	5.73	1.38	2.74	5.49	5.85	4.24	9.84	1.86	1.85	1.96	4.70	51.91
Means,	4.06	4.30	4.32	3.68	4.19	3.90	4.56	4.66	4.06	3.67	3.32	4.24	49.33

Confluence, Somerset Co.—(Elevation 1,332 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1875,	1.74	2.18	3.97	2.26	2.35	2.79	7.79	4.69	1.54	2.51	4.03	3.28	39.13
1876,	3.62	4.24	3.15	3.42	4.21	3.94	6.15	1.99	10.09	1.83	2.12	1.64	46.40
1877,	4.01	1.59	4.70	2.87	2.14	7.13	6.35	1.11	3.17	4.00	6.06	1.88	45.01
1878,	4.47	0.63	3.24	3.74	3.15	2.43	4.35	2.52	2.66	3.96	6.08	3.84	41.07
1879,	2.66	3.08	5.82	1.56	1.49	3.50	4.48	5.06	1.16	1.76	2.67	6.53	39.77
1880,	6.06	4.45	4.27	3.41	2.39	6.69	5.45	4.88	3.60	2.18	1.97	3.83	49.18
1881,	2.99	3.51	2.28	1.97	3.81	9.91	3.62	0.80	1.17	3.68	2.24	5.29	41.27
1882,	7.90	6.07	6.80	2.07	5.97	5.51	3.26	5.20	1.88	1.93	2.33	3.18	52.10
1883,	4.23	6.57	3.03	4.42	4.78	3.72	6.86	3.87	2.87	3.34	2.49	3.63	49.81
1884,	4.07	6.50	5.19	2.84	2.79	1.78	6.29	1.92	1.56	2.68	1.63	4.90	42.15
1885,	5.79	2.76	2.42	3.20	3.27	1.82	2.70	5.45	1.10	4.34	2.80	3.67	39.32
1886,	3.42	2.49	3.27	2.78	4.96	6.53	3.54	4.51	4.11	1.07	1.50	2.89	41.07
1887,	2.09	7.19	1.42	4.43	4.19	....	3.43	2.99	4.21	1.17	1.33	1.52	....
1888,	7.62	2.02	3.30	2.70	5.38	3.40	....	....	....	5.47	3.65	2.25	....
1889,	1.99	2.63	1.98	3.21	4.46	4.09	4.22	3.38	1.90	3.33	4.82	3.95	39.96
1890,	4.63	5.21	6.94	4.75	6.12	3.28	2.88	5.75	5.84	8.06	2.55	4.18	60.19
1891,	4.51	8.00	4.36	3.12	3.73	6.83	6.57	5.92	3.62	3.31	3.45	4.06	57.48
1892,	3.09	2.92	3.26	4.74	5.07	4.93	4.18	2.54	1.57	0.90	3.18	2.03	38.41
1893,	2.37	5.71	1.36	6.37	6.64	2.89	2.65	3.25	2.46	3.99	2.72	2.98	43.39
1894,	3.15	3.57	2.36	4.94	5.86	2.90	3.00	1.37	3.48	2.71	2.87	5.93	42.14
1895,	2.98	1.43	4.03	3.57	1.94	4.28	6.18	3.75	0.68	0.67	3.02	2.58	35.11
1896,	1.27	3.32	4.21	2.89	4.03	4.77	12.11	2.47	6.77	2.52	3.88	1.98	50.22
1897,	3.54	5.88	4.38	3.33	3.91	2.48	6.46	2.56	2.56	0.43	5.89	4.36	45.78
1898,	6.79	2.40	6.79	2.83	4.35	3.14	4.59	8.26	2.20	5.22	3.41	3.19	53.17
1899,	4.37	3.34	6.13	2.41	5.71	4.18	6.64	2.53	5.68	0.70	3.90	3.32	48.91
1900,	2.44	4.02	3.97	1.66	2.06	5.88	8.26	2.38	1.45	3.08	6.68	2.15	44.03
1901,	2.91	1.25	4.35	5.86	6.32	1.99	3.55	4.07	2.49	0.85	2.88	4.65	41.17
1902,	2.80	2.70	4.44	6.08	4.37	4.08	5.56	2.17	2.39	4.45	1.65	6.23	45.92
1903,	4.82	1.98	3.06	3.66	3.16	3.74	5.90	3.22	1.64	2.64	2.91	1.54	38.27
1904,	2.87	2.66	4.18	3.20	4.03	1.62	2.34	4.08	1.20	1.56	0.43	3.21	31.38
1905,	3.94	2.22	4.98	3.59	3.80	6.64	6.43	5.82	1.98	4.36	3.68	3.65	51.09
1906,	4.30	1.15	4.81	4.19	3.56	4.36	3.79	8.14	3.34	2.28	1.67	7.08	48.67
1907,	9.69	3.53	7.64	3.82	4.06	5.99	5.02	4.32	3.24	2.24	3.22	3.06	55.83
1908,	3.16	3.87	6.44	3.92	6.51	3.14	7.24	3.00	0.80	0.08	0.85	3.10	42.11
1909,	3.04	4.30	2.90	5.86	2.80	5.08	2.87	6.30	2.68	3.06	0.72	3.34	42.95
1910,	6.82	2.36	0.38	3.38	3.16	5.56	2.70	1.88	4.54	1.48	1.82	2.22	36.30
1911,	5.16	2.38	2.34	4.73	1.17	9.18	1.98	8.00	6.91	5.72	2.98	4.30	54.85
1912,	1.81	2.72	6.00	3.11	3.63	6.11	8.20	4.99	7.11	1.48	1.86	2.48	49.50
1913,	6.26	1.96	3.22	3.28	5.27	3.11	4.24	2.44	3.39	6.21	4.38	2.52	46.28
1914,	1.84	3.27	2.91	5.07	2.90	5.13	2.31	3.48	0.80	2.67	1.29	4.02	35.62
1915,	4.77	3.21	1.36	2.34	5.70	2.71	4.27	2.50	1.98	3.85	2.58	5.40	40.67
Means,	4.06	3.45	3.94	3.58	4.03	4.42	4.96	3.82	3.05	2.87	2.99	3.53	44.63

Coopersburg, Lehigh Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	....	....	....	....	....	....	....	....	....	....	....	2.22	....
1890,	2.88	5.32	7.92	3.21	7.93	3.14	5.53	6.72	4.18	6.04	0.95	3.76	57.58
1891,	7.29	4.57	6.54	2.50	2.25	2.33	6.07	7.16	2.04	2.74	2.27	4.83	50.59
1892,	6.98	1.05	4.77	1.58	5.12	4.42	3.48	4.05	3.56	0.60	6.78	....	....
1893,	4.26	6.50	2.53	4.07	5.42	2.86	1.96	6.22	3.23	3.25	3.89	2.64	46.84
1894,	1.69	4.26	1.60	3.18	14.78	2.58	2.65	2.43	5.86	5.62	2.75	5.04	52.44
1895,	4.19	1.71	2.60	5.40	3.08	2.40	4.00	3.29	0.75	4.08	2.32	3.22	37.04
1896,	1.13	6.88	5.43	1.35	4.15	3.45	8.46	0.66	6.08	3.29	4.87	1.04	46.79
1897,	2.62	3.73	2.77	3.59	8.74	4.33	6.48	2.93	2.07	2.65	6.80	4.76	51.46
1898,	4.41	3.82	2.55	3.98	7.05	1.04	2.70	5.03	0.91	6.05	7.22	3.78	48.54
1899,	4.73	5.15	6.82	1.85	3.14	3.17	4.53	4.88	7.25	1.48	2.20	1.69	46.89
1900,	3.31	5.48	3.70	1.94	2.72	1.35	6.76	2.33	1.86	2.20	2.12	2.59	36.36
Means,	3.95	4.41	4.29	2.97	5.85	2.82	4.78	4.15	3.44	3.46	3.83	3.23	47.18

Coraopolis, Allegheny Co.—(Elevation 720 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1907,	4.74	....	5.89	1.89	....	3.58	6.29	1.57	....	....	....	....	....
1908,	1.90	3.79	5.70	3.27	4.15	1.96	3.68	2.86	0.90	1.17	0.88	2.56	32.82
1909,	3.50	5.76	3.37	5.07	2.55	3.87	2.01	1.81	0.73	1.45	0.90	2.75	33.77
1910,	5.47	3.25	0.48	2.53	3.39	2.19	1.45	1.57	5.32	1.73	1.28	2.76	31.42
1911,	3.56	1.96	2.03	5.22	0.89	3.37	1.34	5.09	8.70	4.80	2.42	3.86	43.23
1912,	1.59	1.45	4.36	4.06	1.90	3.79	6.36	3.03	3.06	2.01	0.70	2.70	35.00
1913,	5.59	2.09	5.80	2.54	3.45	1.26	5.68	2.63	1.68	3.62	2.67	2.63	39.63
1914,	2.32	3.03	2.50	4.16	3.26	5.21	1.66	3.88	1.62	3.37	1.28	4.25	36.53
1915,	3.96	2.36	1.31	1.16	4.15	6.60	5.41	3.25	1.28	2.53	2.28	3.80	38.09
Means,	3.63	2.96	3.49	3.32	2.97	3.54	3.76	2.85	2.91	2.58	1.56	3.16	36.72

Corry, Erie Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1886,	4.61	2.34	2.98	2.85	1.94	2.63	3.37	1.62	4.15	1.68	5.85	2.91	36.43
1887,	2.84	6.79	2.07	2.75	2.03	2.49	2.76	4.42	3.49	5.45	2.99	2.19	40.27
1888,	3.32	2.03	1.74	3.30	2.80	4.38	2.61	3.15	4.13	4.22	3.81	3.00	38.49
1889,	3.22	1.53	1.63	3.24	2.88	5.12	2.00	2.37	5.25	3.44	4.00	5.09	39.77
1890,	5.07	4.65	4.33	4.65	9.15	5.66	3.95	6.20	7.10	7.25	4.29	3.36	65.66
1891,	2.57	6.67	2.72	1.80	1.58	3.33	5.34	3.79	2.46	1.95	5.70	4.56	42.47
1892,	2.79	3.71	1.63	1.63	8.30	11.62	4.39	7.64	4.18	2.79	3.90	2.05	54.63
1893,	2.68	7.03	3.30	5.25	6.86	5.61	....	....	....	....	....	....	....
1915,	....	....	....	....	....	....	....	....	....	....	3.40	4.44	....
Means,	3.39	4.34	2.55	3.18	4.44	5.10	3.49	4.17	4.39	3.83	4.18	3.45	46.51

Note: January 1886 to June 1887 record obtained at Columbus, Warren County.

Coudersport, Potter Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	....	....	....	....	....	6.90	1.40	....	3.00	4.60	2.10	....	....
1889,	4.80	1.90	....	4.50	7.90	4.80	....	3.80	2.90	3.80	....	....	....
1890,	....	5.90	4.20	....	....	....	....	....	....	....	....	....	....
1903,	....	....	4.25	....	1.06	4.50	5.58	4.71	1.92	4.30	3.94	....	....
1904,	....	....	4.60	3.35	4.26	2.80	4.86	5.55	5.09	2.48	0.60	....	....
1905,	....	....	....	2.38	2.14	5.66	4.60	3.57	2.21	....	....	....	....

Creekside, Indiana Co.—(Elevation 1,105 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1913,	....	....	....	....	....	....	....	....	....	....	....	3.32	....
1914,	3.83	2.10	1.82	5.48	5.26	5.79	4.69	5.29	0.60	3.77	1.56	4.44	44.63
1915,	5.54	4.31	2.97	1.67	5.72	5.11	4.64	5.60	3.76	2.35	1.86	3.75	47.28

Note: This station maintained and operated, in co-operation with the Buffalo, Rochester and Pittsburgh Railway Co., by the Water Supply Commission of Pennsylvania.

Cresson, Cambria Co.—(Elevation 2,215 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1913,	....	....	....	....	....	....	....	....	....	....	3.61	3.27	....
1914,	4.03	3.01	3.84	5.55	3.45	4.10	3.61	2.47	1.02	2.53	1.75	4.06	38.82
1915,	6.36	2.90	1.75	1.17	6.34	5.58	3.13	3.24	2.30	3.18	2.43	4.07	42.45

Note: This station maintained and operated, in co-operation with the Pennsylvania Department of Health, by the Water Supply Commission of Pennsylvania.

Davis Island Dam, Allegheny Co.—(Elevation 720 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1891,	2.33	6.59	3.11	1.94	3.67	4.83	6.28	2.37	1.53	1.76	2.82	3.02	40.25
1892,	3.70	2.25	....	2.07	5.14	3.38	3.81	1.32	1.90	0.54	2.37	2.34	....
1893,	2.56	4.99	0.98	4.55	4.70	3.12	2.34	4.54	1.66	3.18	1.21	3.80	36.71
1894,	1.58	2.63	2.64	3.94	4.36	0.96	1.48	0.68	3.13	2.06	2.43	3.80	29.69
1895,	3.91	0.46	1.48	1.80	2.24	2.19	2.48	3.73	1.38	0.45	3.01	2.91	26.04
1896,	1.61	2.94	3.99	2.84	2.75	4.47	8.90	3.31	3.80	2.12	2.88	1.72	41.33
1897,	1.12	4.11	3.72	3.30	3.57	4.00	6.31	1.52	2.41	0.20	5.42	2.54	38.22
1898,	4.31	1.91	5.39	1.84	3.93	4.88	1.85	4.99	1.00	4.39	2.45	2.03	38.47
1899,	2.51	2.85	3.85	2.55	3.64	4.72	3.00	3.83	2.90	1.23	4.86	2.48	38.42
1900,	2.38	4.26	2.64	1.21	1.10	4.35	3.21	1.31	1.55	1.72	4.12	1.39	29.24
1901,	1.80	0.75	3.46	7.56	6.16	6.51	2.46	6.13	2.21	0.52	2.12	5.13	44.80
1902,	1.00	0.45	3.49	2.60	2.78	5.16	6.80	1.59	2.55	2.61	1.18	3.68	33.89
1903,	2.70	3.75	4.99	2.55	1.32	6.25	4.14	5.37	1.10	2.90	2.45	0.92	38.44
1904,	3.53	2.27	5.38	3.29	3.31	5.94	4.44	2.78	3.14	1.48	0.19	2.61	38.35
1905,	1.89	1.65	3.00	2.66	3.25	6.06	5.19	2.70	2.63	2.83	2.50	3.09	37.45
1906,	2.07	1.28	3.90	1.93	2.44	6.43	6.72	1.72	3.60	2.73	1.13	2.88	36.83
1907,	5.32	1.27	5.56	2.11	2.98	3.28	5.93	1.41	2.18	2.44	2.44	3.29	38.21
1908,	2.25	3.55	5.60	3.53	5.27	1.29	3.18	2.72	0.84	1.37	0.74	2.65	32.99
1909,	2.86	4.70	3.49	4.95	2.47	3.80	1.07	1.87	0.64	1.81	0.83	2.81	31.30
1910,	5.96	3.67	0.30	2.46	3.55	2.18	1.78	1.56	5.03	1.61	1.48	2.67	32.25
1911,	3.45	1.94	2.02	5.09	1.11	3.47	2.46	6.56	10.15	5.42	1.95	4.07	47.69
1912,	1.84	2.00	4.61	4.04	1.76	3.87	7.34	2.85	2.95	2.16	0.68	3.91	37.01
1913,	6.03	2.16	5.67	2.58	3.31	0.97	5.53	2.22	2.57	3.73	2.81	2.86	40.43
1914,	2.33	3.55	2.36	4.73	3.77	4.54	1.43	5.01	1.14	3.09	1.23	4.62	37.80
1915,	4.75	2.63	1.43	1.10	4.05	6.25	4.67	3.84	1.89	2.65	2.21	3.91	39.38
Means,	2.95	2.74	3.46	3.09	3.31	4.12	4.09	3.04	2.56	2.20	2.22	2.93	36.71

Derry Station, Westmoreland Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	....	....	....	....	....	....	....	....	....	3.11	2.95	1.53	....
1897,	2.10	5.11	4.89	3.81	4.03	1.99	4.99	3.40	2.62	0.44	5.76	3.96	43.10
1898,	5.69	1.98	5.82	2.15	4.34	4.58	2.51	6.29	1.43	4.84	3.21	2.83	45.67
1899,	4.25	3.74	4.91	2.55	3.57	4.92	4.50	5.06	2.95	0.72	4.29	3.27	44.73
1900,	3.09	3.83	3.41	1.81	2.34	5.28	5.84	1.85	0.84	3.56	6.33	2.77	40.95
1901,	3.55	1.73	4.49	8.41	7.26	4.27	4.48	....	....	....	....	5.12	....
1902,	4.18	3.38	4.00	4.97	1.38	6.25	7.28	3.53	2.79	5.17	1.30	4.86	49.09
1903,	2.81	4.86	4.02	3.91	1.64	5.04	5.92	5.19	1.63	3.02	2.72	1.62	42.38
1904,	3.09	3.50	5.26	4.74	2.96	3.34	6.21	2.94	1.45	2.56	0.48	2.58	39.10
1905,	3.54	1.98	4.26	3.28	4.56	7.93	5.89	5.26	2.92	4.43	2.87	4.27	51.19
1906,	2.67	1.35	3.79	2.29	2.32	8.09	4.86	4.03	1.83	2.88	1.09	4.56	39.76
1907,	6.83	2.04	7.11	2.63	2.23	5.99	6.13	2.93	5.28	2.67	2.88	3.49	50.21
1908,	2.42	3.51	8.01	4.60	6.20	4.61	4.45	3.14	0.76	0.28	0.56	3.19	41.73
1909,	2.54	4.53	4.03	6.31	2.86	3.37	2.50	3.21	1.55	2.73	0.99	2.24	36.86
1910,	7.39	3.27	0.44	3.41	2.79	2.65	2.25	1.79	3.52	1.98	2.22	2.84	34.55
1911,	4.44	2.13	2.65	4.48	1.30	5.07	2.99	4.21	6.09	4.87	2.61	3.96	45.40
1912,	2.32	2.19	6.32	4.56	2.26	4.48	9.09	6.00	6.22	4.28	0.92	2.55	51.20
1913,	6.38	2.15	3.75	2.56	4.59	3.01	3.95	1.89	5.43	5.23	3.87	3.77	46.58
1914,	2.68	3.13	3.25	4.89	3.38	6.07	2.58	3.66	1.06	1.93	1.69	4.83	39.05
1915,	5.83	2.93	1.72	1.26	5.16	3.50	4.92	2.37	2.21	3.30	2.42	5.15	40.77
Means,	3.99	3.02	4.32	3.82	3.43	4.76	4.81	3.71	2.84	3.05	2.58	3.47	43.80

Doylestown, Bucks Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	4.32	2.06	3.77	4.92	4.82	5.82	11.87	4.28	8.61	4.27	10.05	2.30	67.08
1890,	1.55	4.29	5.09	2.51	5.41	5.59	4.65	5.41	3.28	6.26	1.09	3.38	48.51
1891,	2.29	4.89	5.55	1.92	3.43	3.66	6.30	8.68	1.98	4.22	1.87	4.29	49.08
1892,	5.55	1.17	3.32	2.00	5.43	3.79	3.86	2.97	2.41	0.17	7.51	1.76	39.94
1893,	3.29	5.97	3.24	4.66	4.28	2.98	1.32	9.99	3.06	2.94	4.50	2.33	48.55
1894,	1.72	4.28	1.38	3.30	11.41	1.35	2.06	2.77	8.78	4.84	2.60	3.89	48.38
1895,	3.98	1.29	2.77	5.03	2.64	2.97	3.11	2.89	0.73	3.17	1.89	1.40	31.87
1896,	1.03	7.47	5.04	1.65	2.67	4.07	5.34	1.32	5.89	2.19	3.96	1.07	41.70
1897,	1.89	3.73	2.58	3.80	7.89	4.99	5.11	3.87	1.67	2.60	4.95	4.68	50.76
1898,	4.13	3.62	3.08	4.16	5.94	1.18	3.11	7.26	1.95	5.14	6.28	3.74	49.59
1899,	4.02	....	6.07	....	....	....	....	....	7.30	1.93	....	2.68	....
1901,	2.35	1.51	4.80	5.34	6.06	3.29	7.20	8.18	4.30	0.96	2.85	7.96	54.80
1902,	4.00	7.43	6.16	3.28	1.83	6.13	4.03	5.14	6.33	7.77	1.59	7.94	61.63
1903,	4.45	6.13	4.98	4.27	9.56	5.42	6.30	4.82	3.33	8.15	1.34	4.31	54.05
1904,	5.11	2.89	4.26	3.61	3.41	4.70	9.19	8.39	3.74	5.59	2.82	3.01	56.72
1905,	4.21	2.43	4.62	4.15	1.10	2.81	2.88	9.45	4.65	3.79	3.02	3.46	46.57
1906,	4.68	2.86	6.56	4.52	3.34	10.29	5.26	5.62	2.56	8.39	2.10	4.89	61.06
1907,	4.81	3.16	3.44	4.22	4.19	6.19	3.60	2.37	9.69	4.92	5.89	4.77	57.25
1908,	4.52	7.51	4.84	3.41	7.24	2.19	5.70	6.75	2.25	4.26	0.96	3.92	53.55
1909,	4.03	4.81	4.52	5.46	3.91	3.62	1.89	2.56	3.06	1.28	3.33	4.52	42.99
1910,	6.78	5.39	0.89	7.93	2.27	4.49	0.16	8.29	4.91	2.11	4.04	4.19	51.45
1911,	4.31	2.46	3.32	4.31	1.98	5.11	3.59	14.00	3.04	6.47	3.57	4.37	56.53
1912,	2.28	3.26	9.71	4.77	2.69	1.72	2.84	6.76	5.62	5.27	3.90	5.83	54.65
1913,	3.85	3.68	4.03	7.28	4.06	1.95	6.04	4.52	5.43	8.68	2.75	3.35	55.61
1914,	....	....	....	2.75	1.81	2.41	4.37	1.87	0.34	1.81	2.33	6.49	....
1915,	6.19	6.15	1.48	3.33	4.25	2.28	6.37	9.09	1.26	2.19	1.90	4.74	49.23
Means,	3.81	4.10	4.22	4.10	4.10	3.96	4.77	5.89	4.08	4.21	3.48	4.05	50.77

Drifton, Luzerne Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1884,	4.30	4.30	4.04	4.36	3.62	2.88	6.77	4.79	2.50	2.67	3.83	4.76	48.82
1885,	5.25	3.39	0.76	1.99	2.30	2.00	2.70	7.44	1.39	5.66	5.46	2.82	41.16
1886,	6.42	3.47	5.15	4.11	8.00	2.60	4.35	1.82	3.69	3.64	6.62	2.64	52.41
1887,	3.49	3.12	0.67	3.02	2.84	4.85	5 91	5.17	2.37	1.16	2.10	3.91	38.61
1888,	3.79	2.63	3.11	2.68	5.69	4.18	2.16	11.27	7.63	4.75	4.94	2.05	54.78
1889,	3.74	1.46	2.61	5.89	6.80	4.99	9.55	4.77	5.56	5.74	7.39	2.11	60.61
1890,	1.94	3.60	4.81	3.25	8.07	3.64	5.92	5.30	3.55	6.50	....	....	....
1891,	....	2.90	....	....	....	....	....	....	....	....	4.98	6.53	....
1892,	4.93	0.56	2.14	1.64	3.78	8.61	3.79	4.79	2.29	1.38	3.84	1.20	38.95
1893,	1.97	3.92	3.44	4.63	8.94	1.70	4.66	6.65	4.19	3.36	2.58	1.93	47.97
1894,	2.68	3.40	....	4.52	6.75	2.87	1.75	1.15	4.65	5.15	2.52	1.28	....
1895,	1.69	2.58	1.18	4.24	2.03	1.77	2.66	3.25	2.08	2.66	3.57	2.07	29.77
1896,	....	3.14	....	....	....	....	....	....	....	....	....	....	....
1897,	1.52	2.24	2.33	3.66	4.86	....	....	....	....	....	....	....	....
1898,	....	....	2.45	....	....	....	....	....	0.86	....	....	....	....
1901,	1.90	0.55	6.00	3.60	6.20	....	3.11	8.99	....	....	....	....	....
1902,	....	3.70	4.60	2.60	1.20	....	7.00	....	....	....	....	....	....
1907,	3.50	2.23	4.35	1.26	2.33	5.67	2.87	2.99	5.42	1.98	4.25	6.70	43.55
1908,	2.25	5.93	4.06	6.31	6.75	2.62	5.16	2.47	2.77	3.24	0.79	2.64	44.98
1909,	3.62	6.01	3.62	8.49	3.82	4.40	2.04	1.76	3.93	3.98	1.90	3.86	47.36
1910,	7.01	4.69	1.24	7.10	4.46	4.20	1.47	2.96	4.51	1.90	2.84	3.12	45.49
1911,	4.33	2.44	2.69	4.23	3.65	6.96	4.71	7.87	4.07	6.50	4.56	4.40	55.30
1912,	2.55	2.52	6.03	6.85	3.29	2.66	3.11	8.43	5.80	3.73	3.32	5.30	53.57
1913,	5.73	2.45	6.38	7.91	3.25	2.37	4.50	2.76	4.39	5.64	3.73	2.55	51.56
1914,	2.40	2.56	3.07	5.25	4.05	5.59	7.51	4.48	0.88	2.24	1.88	4.87	44.78
1915,	5.36	5.48	0.94	3.50	3.96	2.87	7.58	10.76	1.79	1.41	2.70	6.53	52.97
Means,	3.65	3.17	3.25	4.39	4.63	3.87	4.61	5.23	3.54	3.66	3.68	3.56	47.04

Driftwood, Cameron Co.—(Elevation 816 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	1.91	3.05	2.89	1.84	2.96	6.97	7.08	2.40	7.43	3.26	1.90	0.91	42.60
1897,	2.18	2.18	3.63	3.58	4.40	2.48	9.29	3.07	3.66	1.26	4.36	2.74	42.83
1898,	3.26	1.96	7.58	2.45	4.05	2.90	3.29	4.83	0.85	6.51	2.43	3.06	43.16
1899,	1.85	1.66	3.60	1.02	4.85	3.35	3.67	2.10	3.26	0.40	4.08	4.04	33.87
1900,	2.78	2.66	4.10	1.22	1.95	0.85	3.48	3.61	1.25	4.08	4.23	1.93	32.14
1901,	1.97	0.45	3.15	5.30	5.97	2.94	3.68	7.53	4.03	1.21	1.48	5.30	43.01
1902,	2.18	1.20	3.82	3.02	2.08	6.18	7.83	2.74	3.25	2.15	0.92	3.47	38.84
Means,	2.30	1.88	4.11	2.63	3.75	3.67	5.47	3.75	3.39	2.70	2.77	3.06	39.48

DuBois, Clearfield Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1890,	....	....	....	....	....	....	....	....	....	....	....	3.36	....
1891,	3.02	5.98	3.08	2.66	1.71	6.90	5.75	4.61	1.95	3.68	4.07	4.88	48.29
1892,	3.72	3.47	3.66	2.90	7.31	5.76	4.14	2.57	1.59	0.92	3.92	1.66	41.62
1893,	3.17	7.50	2.70	4.34	4.66	4.10	3.90	3.73	2.61	2.33	2.60	3.47	45.11
1894,	3.52	2.47	1.96	3.79	7.98	3.41	2.15	0.74	7.72	2.74	2.27	3.22	41.97
1895,	4.83	1.58	1.95	4.41	2.24	5.24	2.29	2.54	1.60	0.76	3.37	3.73	34.54
1896,	1.38	3.65	3.87	2.58	1.86	5.22	7.46	3.79	5.21	3.05	3.67	1.98	43.72
1897,	2.18	2.83	....	3.45	4.11	2.48	6.57	2.23	3.38	....	....	....	....
Means,	3.12	3.93	2.87	3.45	4.27	4.73	4.61	2.89	3.44	2.25	3.32	3.19	42.07

Duncannon, Perry Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1895,	....	....	....	....	1.99	2.27	1.40	2.01	1.69	1.70	1.67	3.67	....
1896,	1.14	6.00	3.98	1.59	3.95	5.56	8.31	1.51	2.69	4.46	4.48	0.65	44.32
1897,	3.40	6.27	3.25	2.59	6.06	3.91	4.66	2.51	2.59	2.10	4.77	3.71	45.82
1898,	3.62	1.73	3.70	2.74	6.90	1.87	4.91	9.93	2.25	7.29	3.90	3.55	52.39
1899,	2.43	4.60	4.06	1.07	4.93	5.22	2.64	4.47	4.07	3.24	1.46	2.95	41.14
1900,	2.24	3.84	4.06	1.51	1.66	2.27	3.66	3.96	2.60	3.13	3.66	2.13	34.72
1901,	1.90	0.21	4.76	3.49	8.34	1.98	2.66	6.58	2.47	2.12	1.78	5.97	42.26
1902,	3.13	6.63	5.70	2.81	0.58	5.51	5.47	3.92	....	....	....	....	....
Means,	2.55	4.18	4.22	2.26	4.30	3.57	4.21	4.36	2.62	3.43	3.10	3.23	42.03

Dushore, Sullivan Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1897,	....	1.50	2.06	2.70	4.87	3.09	3.63	3.44	2.53	1.40	3.74	2.74	....
1898,	2.57	1.91	3.42	3.47	3.63	3.30	2.80	6.08	1.89	4.86	3.53	2.37	39.83
1899,	1.94	3.48	3.79	1.82	2.20	3.13	2.03	3.79	2.80	1.36	2.84	5.09	34.27
1900,	1.97	4.01	3.19	1.05	2.31	4.10	4.68	2.25	1.13	2.35	3.38	2.09	32.51
1901,	1.10	0.78	4.37	5.50	6.90	3.34	5.34	10.59	3.33	2.71	2.87	7.13	53.96
1902,	2.58	4.45	5.66	3.91	1.16	7.39	8.95	3.28	5.29	3.37	1.20	4.65	51.89
1903,	2.61	4.02	3.36	2.66	1.25	5.34	5.05	5.29	1.52	4.98	2.38	3.48	41.94
1904,	3.34	0.99	3.26	2.68	4.94	....	2.98	3.96	3.18	2.15	0.97	2.19	....
1905,	4.42	0.85	3.51	2.83	1.88	4.46	....	....	....	....	1.08	2.95	....
1906,	1.07	....	....	....	3.41	4.03	6.27	3.60	1.12	3.85	1.46	2.57	....
1907,	....	....	....	....	....	....	....	....	....	3.80	2.08	4.17	....
1908,	2.76	4.41	1.58	2.01	5.93	3.15	4.71	3.13	2.00	2.30	0.20	1.95	33.13
1909,	1.66	4.13	2.52	4.64	2.40	5.59	1.25	1.64	2.18	....	....	....	....
Means,	2.37	2.78	3.34	3.02	3.41	4.17	4.34	4.28	2.46	3.01	2.14	3.45	38.76

Dyberry, Wayne Co.—(Elevation 1,100 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1866,	2.93	2.73	3.06	2.44	2.78	2.94	4.71	3.33	2.54	3.17	3.12	2.54	36.28
1867,	1.80	1.46	2.18	......	......	......	......	......	......	......	......	1.85	......
1868,	3.13	1.60	......	......	......	......	......	......	......	......	......	2.54	......
1869,	1.24	1.25	5.15	1.87	2.20	2.50	2.71	2.26	4.33	6.40	2.57	4.50	36.98
1870,	4.33	3.75	3.35	3.00	3.17	2.90	......	......	1.31	......	......	1.70	......
1871,	1.97	1.76	5.78	2.58	2.65	2.51	7.68	5.22	1.18	2.40	2.70	1.41	37.84
1872,	0.50	1.10	2.25	2.65	2.85	3.51	4.89	4.68	3.60	3.79	1.77	2.48	34.07
1873,	4.01	1.89	3.00	3.35	3.15	1.13	4.05	4.26	3.82	5.59	2.83	2.35	39.43
1874,	3.66	2.60	1.75	5.07	1.28	2.17	6.77	1.40	2.42	1.72	2.43	0.95	32.22
1875,	1.51	1.60	3.58	2.02	0.36	1.31	4.30	5.98	1.14	3.62	2.50	1.98	29.90
1876,	1.13	3.95	4.08	......	......	......	......	......	......	......	......	1.70	......
1877,	2.20	0.60	3.24	2.25	......	......	......	......	1.98	6.55	4.06	1.20	......
1878,	4.75	2.15	3.18	1.27	4.47	2.97	6.28	2.02	4.01	2.08	4.30	5.02	42.50
1879,	2.06	2.65	2.64	2.55	2.03	3.40	4.60	1.69	2.29	1.42	3.31	4.72	33.35
1880,	2.69	2.89	2.71	2.63	1.71	4.35	3.16	2.56	3.37	2.19	2.56	1.60	32.42
1881,	3.51	3.15	2.92	1.24	1.96	5.13	4.36	2.57	1.06	4.08	3.41	4.05	37.44
1882,	4.67	4.13	2.09	0.80	5.19	3.39	7.24	2.74	2.57	1.23	1.40	1.55	36.99
1883,	2.35	3.62	1.55	2.31	2.86	5.38	5.02	0.95	2.45	3.68	2.27	2.33	34.77
1884,	3.75	5.59	3.93	3.00	3.86	1.27	6.02	3.43	2.53	2.34	2.48	3.74	41.94
1885,	4.52	2.75	1.03	2.48	2.35	3.92	1.70	8.77	1.04	3.52	4.41	2.23	38.72
1886,	2.85	2.43	3.51	1.89	4.41	1.21	2.84	1.98	5.06	2.42	7.10	2.32	38.02
1887,	4.00	4.89	3.55	2.20	2.62	3.91	9.28	5.03	2.18	1.24	2.60	4.19	45.69
1888,	4.38	3.07	4.01	2.98	3.86	2.07	4.19	7.46	6.49	3.97	4.61	3.40	50.49
1889,	......	......	1.74	4.55	4.72	4.24	6.53	2.85	4.18	3.75	5.80	2.91	......
1890,	2.74	3.74	5.00	2.53	5.56	4.24	4.45	6.35	4.40	7.39	1.68	5.29	53.37
1891,	5.35	4.97	4.19	2.42	2.27	1.86	3.88	4.75	2.37	3.41	1.85	4.17	41.43
1892,	5.65	1.29	4.14	1.54	5.79	6.07	2.91	4.64	2.10	0.82	3.48	1.76	40.19
1893,	2.12	6.58	3.30	3.65	6.21	3.06	4.62	4.45	3.58	2.17	2.17	3.32	45.23
1894,	1.95	2.73	1.55	2.51	6.25	2.86	1.26	1.27	4.40	5.43	2.21	3.89	36.31
1895,	2.95	0.74	1.44	3.22	2.52	3.10	1.78	3.64	0.95	2.46	3.04	3.02	28.86
1896,	1.43	5.10	4.86	0.67	3.58	1.89	4.44	1.40	4.10	3.07	3.42	0.91	34.87
1897,	1.36	3.06	3.28	3.72	5.13	2.85	6.03	2.83	3.14	0.97	5.36	4.71	42.44
1898,	4.99	3.12	3.90	3.21	4.55	2.33	4.70	5.95	2.93	4.62	5.10	2.66	48.06
1899,	2.09	3.97	5.14	......	......	......	......	......	4.90	0.69	2.36	1.95	......
1900,	2.76	4.02	2.80	1.70	......	......	......	......	3.73	2.39	2.90	2.78	......
1901,	1.98	0.91	4.20	......	......	......	......	5.65	3.32	1.28	2.15	6.66	......
1902,	2.34	5.23	2.98	3.40	......	......	7.27	3.08	8.41	4.77	1.23	5.84	......
1903,	3.62	4.75	5.11	......	......	......	......	......	......	......	......	......	......
Means,	2.95	3.02	3.30	2.55	3.46	3.05	4.75	3.77	3.17	3.17	3.13	2.98	39.30

Eagles Mere, Sullivan Co.—(Elevation 2,060 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	6.16	3.87	4.34	3.47	3.70	2.69	3.92	9.25	6.34	9.18	6.22	4.77	63.91
1889,	4.92	3.87	1.85	5.71	9.21	....	6.30	2.82	9.35	8.61	9.27	3.28	....
1890,	4.57	6.20	7.61	4.23	8.97	3.72	4.24	7.28	7.11	8.41	1.64	7.02	71.00
1891,	5.50	5.46	5.88	3.15	2.67	....	....	....	....	....	....	....	....
1892,	6.19	....	....	....	....	....	....	....	....	....	....	....	....
1913,*	....	....	....	....	....	....	....	....	....	....	....	4.25	....
1914,	2.74	2.83	2.73	6.80	4.59	4.45	5.09	3.92	0.90	3.58	1.39	5.30	44.32
1915,	7.14	5.51	1.37	2.04	3.67	6.99	5.48	7.29	2.32	2.06	2.06	4.75	50.66
Means,	5.32	4.62	3.96	4.23	5.47	4.46	5.01	6.11	5.20	6.37	4.11	4.90	59.76

Note: *From December, 1913, this station maintained and operated, through the courtesy of Capt. E. S. Chase, by the Water Supply Commission of Pennsylvania.

East Bloomsburg, Columbia Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	0.96	4.95	2.55	1.03	3.43	4.86	5.82	2.69	3.23	4.09	5.00	0.61	39.21
1897,	1.13	1.53	2.94	2.54	7.06	2.79	2.74	1.40	2.46	1.38	3.98	4.13	34.07
1898,	3.16	1.20	3.75	2.93	6.11	2.14	1.61	2.77	0.13	3.04	1.21	0.42	28.47
1899,	0.03	3.70	....	1.09	3.32	2.90	3.69	5.62	3.62	1.63	....	4.10	....
1900,	1.67	2.91	2.80	1.50	1.83	3.60	3.26	3.23	0.25	2.83	....	0.80	....
1901,	1.32	0.06	3.41	3.45	5.59	2.33	1.64	11.03	2.42	2.56	2.18	6.10	42.09
1902,	2.37	6.24	1.65	1.93	0.93	6.60	4.83	1.50	6.33	5.91	1.32	3.48	43.09
1903,	2.68	3.63	2.81	3.11	0.65	8.58	....	4.50	1.90	4.80	1.60	1.80	....
1904,	4.55	1.30	2.65	3.29	3.18	2.33	4.02	3.02	3.96	3.24	0.92	1.77	34.23
Means,	1.99	2.72	2.82	2.32	3.67	4.00	3.45	3.97	2.70	3.28	2.32	2.58	35.72

Easton, Northampton Co.—(Elevation 325 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1856,	....	0.72	....	2.93	3.46	2.36	1.48	6.44	6.51	0.96	2.48	3.25	....
1857,	3.32	1.70	1.04	5.74	7.34	5.76	3.94	3.46	1.07	3.15	1.48	5.26	43.26
1858,	2.26	1.05	0.69	3.12	6.60	4.45	4.15	2.68	2.69	1.82	4.84	4.22	38.57
1859,	3.76	3.35	6.89	4.98	2.15	4.10	4.09	5.01	6.93	2.23	3.61	4.56	51.66
1883,	3.20	3.87	2.40	2.94	2.68	4.62	4.86	2.36	4.27	5.22	1.61	3.36	41.39
1884,	4.73	4.77	4.97	2.38	2.28	2.87	5.19	5.91	1.01	3.96	3.26	6.07	47.40
1885,	4.74	4.18	0.77	2.40	2.29	2.74	2.63	7.76	0.59	5.37	4.03	3.30	40.80
1886,	3.08	5.28	4.11	3.37	7.14	3.93	4.65	2.63	1.33	2.37	5.80	3.86	47.55
1887,	3.01	5.79	3.34	2.25	3.96	6.10	11.28	4.30	3.24	1.41	1.55	6.01	52.24
1888,	6.45	3.91	3.95	3.96	3.18	1.49	2.83	9.39	11.75	2.97	3.79	4.17	57.84
1889,	5.36	2.26	3.61	5.21	6.08	3.77	10.48	5.27	6.40	4.51	9.90	1.12	63.97
1890,	1.99	3.75	6.39	3.42	5.98	4.72	5.79	6.00	3.22	5.65	1.26	3.38	51.55
1891,	6.42	3.74	5.02	2.41	2.78	3.22	4.48	5.13	1.85	3.42	1.77	4.77	45.01
1892,	5.30	1.08	3.84	1.70	4.53	4.57	2.38	3.70	2.73	0.54	6.06	1.62	38.05
1893,	3.56	6.46	3.10	3.86	4.82	1.66	3.51	5.29	2.92	2.62	3.21	3.24	44.25
1894,	1.88	3.39	1.25	1.90	8.70	2.54	0.53	2.04	6.57	5.47	2.70	3.55	40.52
1895,	3.56	1.55	2.16	3.91	2.58	3.10	5.02	2.29	0.74	4.62	2.22	2.47	34.22
1896,	1.03	6.24	3.99	1.23	4.41	3.98	10.28	3.47	4.49	2.38	4.46	0.49	46.45
1897,	1.92	1.28	0.82	1.20	5.75	3.26	8.04	3.20	2.49	1.85	6.20	5.63	41.64
1898,	4.71	3.70	3.07	3.25	8.03	1.90	4.89	5.06	1.18	5.64	6.22	3.12	50.77
1899,	4.03	3.41	4.41	1.92	2.51	3.90	2.89	5.87	6.14	0.82	2.32	2.04	40.26
1900,	3.72	5.78	3.18	1.63	2.50	2.27	6.83	3.55	1.72	1.60	2.51	2.32	37.61
1901,	2.14	0.71	5.44	4.39	5.89	2.29	3.11	6.96	2.71	1.19	1.53	6.90	43.26
1902,	2.49	5.80	3.37	3.35	2.22	6.50	4.52	3.65	8.31	5.35	1.26	7.22	54.04
1903,	4.13	4.23	4.44	4.38	0.77	9.15	6.65	5.42	1.43	7.96	1.84	3.62	53.52
1904,	3.06	1.53	3.22	3.35	3.00	3.25	4.40	9.64	4.92	3.57	1.88	2.79	44.61
1905,	4.70	1.16	3.89	1.90	1.05	2.34	3.21	5.14	4.64	4.18	2.52	2.71	37.44
1906,	2.70	2.33	4.34	3.92	4.51	4.94	3.98	3.93	2.39	5.17	1.25	5.06	44.52
1907,	3.40	2.15	2.83	3.42	2.79	3.84	1.01	3.14	8.68	4.28	5.46	4.44	45.44
1908,	2.81	5.63	2.97	2.75	6.43	2.30	4.81	3.97	2.30	2.52	0.70	2.51	39.70
1909,	3.72	6.01	3.02	6.01	2.82	3.77	3.02	1.51	3.07	1.04	*	*	....
Means,	3.57	3.45	3.42	3.20	4.17	3.73	4.68	4.65	3.82	3.35	3.24	3.77	45.06

Note: *Station moved to Phillipsburg, N. J.

Edinboro, Erie Co.—(Elevation 1,212 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1913,	....	....	....	....	2.67	5.08	4.91	4.36	1.80	7.71	5.39	1.80	....
1914,	3.76	2.09	3.52	5.32	5.32	2.54	1.93	5.28	1.25	4.37	4.27	3.86	43.51
1915,	3.46	3.38	1.39	2.46	4.48	2.96	6.15	9.85	4.56	3.43	5.32	4.34	51.78

Ellwood Junction, Beaver Co., and Ellwood City, Lawrence Co.

Year	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1894,	2.24	2.14	1.89	2.60	2.72	1.51	3.30	0.39	4.83	1.99	1.88	2.75	28.24
1895,	4.25	0.47	0.99	1.66	1.75	2.60	4.28	3.34	1.19	0.68	3.22	3.33	27.76
1896,	1.67	2.13	3.74	2.65	2.36	5.93	5.24	2.99	2.89	0.94	1.95	1.83	34.32
1897,	1.68	2.81	2.63	3.82	2.61	4.71	10.94	2.65	1.70	0.04	4.94	3.07	41.60
1898,	4.77	2.25	6.67	2.08	4.51	6.96	3.70	5.51	1.07	4.33	2.57	2.56	46.98
1899,	2.22	1.52	3.81	1.83	4.81	5.17	2.79	5.18	2.61	1.11	1.60	2.50	35.15
1900,	2.01	2.93	3.20	1.00	2.75	3.59	7.88	2.92	1.29	1.86	5.67	1.80	36.90
1901,	2.67	0.85	4.34	8.35	6.30	6.23	1.82	7.06	3.11	0.23	3.09	3.79	47.84
1902,	1.46	1.35	3.48	2.63	3.05	5.67	5.70	2.79	1.50	3.16	1.12	4.21	36.12
1903,	1.50	3.54	4.50	2.16	4.12	6.28	6.24	4.10	1.06	2.58	2.02	2.18	40.28
1904,	3.20	2.52	5.24	5.66	2.94	6.29	3.00	3.49	1.85	1.68	0.64	2.47	38.98
1905,	1.72	2.35	3.66	2.96	3.54	5.48	4.34	1.92	3.38	4.67	2.16	3.32	39.50
1906,	2.13	1.26	3.18	2.38	2.46	3.04	6.26	6.64	3.17	3.76	1.58	3.15	39.01
1907,	5.53	0.98	6.18	4.30	4.84	4.94	2.38	1.40	5.60	2.39	1.74	3.02	43.29
1908,	1.80	3.46	6.50	....	....	....	....	....	....	....	....	....	....
1909,	....	4.81	3.04	5.59	2.45	4.22	2.25	1.84	0.40	1.71	1.56	2.44	....
1910,	4.62	3.87	0.31	3.48	3.41	2.99	1.75	2.30	6.20	1.75	1.95	2.17	34.80
1911,	4.54	2.36	2.66	5.93	1.24	5.90	2.08	6.60	5.22	5.21	3.04	4.16	48.89
1912,	1.98	1.80	4.20	4.78	1.21	4.51	11.01	4.42	3.34	2.65	0.81	2.42	43.13
1913,	6.23	2.66	6.15	2.28	3.14	1.91	6.53	1.24	1.38	4.46	3.13	2.23	41.34
1914,	2.88	2.38	2.87	5.02	3.68	4.76	1.76	5.60	1.33	2.56	1.64	4.39	38.37
1915,	3.28	2.89	1.16	1.72	4.12	5.65	4.97	6.59	1.83	1.69	2.64	3.93	40.47
Means,	2.97	2.33	3.63	3.47	3.24	4.68	4.67	3.76	2.62	2.35	2.33	2.94	38.99

Note: On February 1, 1909, station re-established at Ellwood City, Lawrence Co.

Emporium, Cameron Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	....	....	2.88	2.91	4.63	6.57	2.17	4.28	2.57	4.15	2.56	2.94	....
1889,	2.75	1.61	1.44	3.66	8.04	4.63	7.03	3.23	2.84	3.70	5.11	3.85	47.89
1890,	3.80	5.02	4.79	3.98	9.61	4.85	4.87	7.76	7.91	5.30	2.16	3.21	63.26
1891,	3.47	4.56	5.12	2.33	1.06	4.45	8.46	5.40	1.17	3.48	4.01	4.96	48.47
1892,	3.29	3.77	3.87	1.64	7.38	6.13	2.67	3.02	2.78	1.35	3.24	0.94	40.08
1893,	3.11	5.91	2.92	4.21	4.99	4.83	2.37	3.00	2.10	3.36	2.05	4.07	42.92
1894,	3.85	3.08	1.24	3.89	9.45	3.06	2.09	1.37	5.26	3.94	1.81	2.93	41.97
1895,	4.79	0.50	1.60	2.63	3.08	4.95	3.06	2.98	2.89	1.82	2.59	3.37	34.16
1896,	1.17	3.68	4.36	1.88	3.36	6.75	5.11	1.62	5.69	3.31	3.60	1.82	42.35
1897,	2.30	3.20	4.03	3.49	3.42	2.04	5.28	2.13	2.73	0.94	5.13	4.20	38.89
1898,	4.54	1.47	5.80	2.59	4.21	3.90	4.13	5.87	1.89	6.24	8.37	2.66	46.67
1899,	2.91	3.66	4.69	2.57	3.92	3.82	4.32	8.78	4.89	2.21	2.86	4.80	43.93
1900,	3.16	2.85	4.50	1.29	3.46	2.43	4.48	3.50	1.36	3.84	5.05	2.08	38.00
1901,	2.55	1.08	3.01	5.03	6.74	4.39	4.07	6.29	4.05	1.23	2.94	5.22	46.60
1902,	2.27	3.23	3.78	3.32	2.29	7.15	12.35	2.49	2.93	2.06	1.72	5.00	48.59
1903,	4.07	5.21	4.84	2.76	1.87	5.44	8.42	5.92	1.56	4.03	3.67	2.88	50.17
1904,	3.04	3.09	6.18	4.74	3.28	5.11	5.46	4.13	4.59	2.08	0.64	2.89	45.23
1905,	3.03	1.00	4.47	2.64	1.76	4.33	4.90	3.26	3.54	5.82	2.04	5.40	42.18
1906,	3.28	0.75	3.95	2.94	5.59	1.89	3.98	3.76	2.63	3.04	1.72	3.54	37.07
1907,	4.68	1.00	3.62	3.40	2.39	7.64	1.32	1.12	5.89	3.60	2.28	3.63	40.57
1908,	2.52	4.90	5.45	3.79	7.62	2.06	3.99	3.47	0.99	0.60	1.60	3.18	40.17
1909,	2.88	5.73	2.79	6.73	3.59	5.75	1.95	0.96	1.98	2.14	1.50	2.45	38.45
1910,	6.50	4.11	0.59	5.14	2.04	2.21	3.42	1.97	5.00	1.54	2.40	3.61	38.53
1911,	4.32	3.27	2.94	3.41	1.95	4.15	1.64	7.45	6.14	3.64	2.66	3.34	44.91
1912,	2.38	2.35	3.52	4.30	3.04	1.38	3.89	6.88	4.95	3.34	1.78	2.32	40.13
1913,	7.06	2.13	6.07	3.28	4.10	2.94	6.31	2.11	1.85	6.42	3.52	2.84	48.63
1914,	4.07	2.96	2.32	4.45	5.56	2.67	2.50	4.58	1.68	2.52	2.18	4.15	39.64
1915,	6.35	2.96	1.48	1.06	4.09	4.56	5.43	5.03	2.61	2.34	1.93	4.06	41.89
Means,	3.63	3.08	3.65	3.36	4.36	4.27	4.49	3.83	3.37	3.14	2.72	3.44	43.34

Ephrata, Lancaster Co.

Year.	Jan.	Feb.	Mar.	Apr.	May	June.	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1865,	....	....	....	....	....	....	....	....	....	....	4.70	6.13	....
1866,	1.87	4.77	1.41	2.16	2.92	7.41	1.7[illegible]	3.7[illegible]	4.47	1.95	3.46	2.20	40.06
1867,	1.72	4.28	6.14	1.16	8.37	6.55	3.01	14.89	1.25	2.72	0.37	2.47	53.89
1868,	1.29	2.19	2.77	2.15	3.67	1.90	2.48	....	....	....	....	....	....
1869,	3.55	4.88	4.56	2.82	4.16	3.21	2.20	1.44	4.81	8.97	3.19	5.87	50.59
1870,	2.39	2.49	3.77	2.72	3.50	4.75	2.52	3.65	4.48	2.82	1.59	2.06	41.93
1871,	3.13	2.24	6.59	2.29	1.29	5.40	6.08	8.98	1.88	2.14	3.44	2.20	48.65
1872,	0.89	1.05	1.55	2.50	4.52	5.23	4.26	6.68	5.26	4.62	4.73	3.49	44.78
1873,	5.50	4.27	3.22	....	....	....	....	....	....	3.80	3.16	....	....
1874,	3.52	....	4.08	14.92	....	....	....	3.50	3.42	1.20	3.44	1.96	....
1875,	3.13	....	....	....	....	....	....	....	....	....	....	....	....
1876,	....	4.00	4.02	....	6.00	2.02	8.04	2.98	3.52	....	3.75	....	....
1877,	1.80	2.10	....	....	....	....	....	....	....	....	....	....	....
1899,	....	....	....	....	....	....	....	....	7.26	1.18	3.40	1.56	....
1900,	2.31	5.15	2.56	1.64	5.07	2.89	6.28	3.23	1.33	0.80	1.89	2.32	35.42
1901,	2.40	0.77	3.86	3.73	3.94	1.58	5.61	6.12	2.96	1.25	1.39	5.67	39.08
1902,	3.25	5.73	3.68	3.43	1.72	5.82	3.19	6.44	4.50	7.42	2.20	6.17	53.46
1903,	4.18	4.95	3.87	3.19	0.97	5.14	3.77	7.13	2.09	3.95	1.51	2.70	48.59
1904,	2.95	1.64	2.61	2.46	3.97	5.61	6.17	3.67	3.69	2.92	1.16	2.61	39.46
1905,	4.49	2.00	3.98	3.11	1.60	2.59	3.74	8.28	2.30	4.36	2.81	3.20	42.46
1906,	2.55	2.75	4.23	3.72	4.43	5.18	1.97	4.50	2.04	6.01	0.65	6.53	43.56
1907,	3.09	2.44	2.99	2.16	2.40	5.65	4.16	3.33	6.61	3.01	4.15	4.39	44.25
1908,	1.88	3.62	....	2.30	4.75	1.42	8.53	3.00	1.90	1.22	0.84	2.65	....
1909,	2.31	4.68	2.10	4.22	2.72	4.29	2.70	0.67	4.64	2.33	1.48	3.84	35.98
1910,	3.31	4.15	0.26	4.40	3.06	7.46	2.18	4.61	2.28	2.30	2.23	2.23	38.52
1911,	2.99	2.22	2.40	3.50	1.01	4.46	5.02	8.82	3.97	3.90	3.37	3.18	44.84
1912,	1.48	2.07	5.69	2.70	2.19	2.69	6.50	2.91	5.08	2.50	2.28	4.35	40.44
1913,	2.37	1.29	6.36	5.52	3.27	1.60	2.06	2.96	4.76	5.33	1.43	3.14	40.09
1914,	2.42	2.94	2.22	2.93	2.18	4.00	3.78	2.75	0.58	1.78	1.45	5.26	32.29
1915,	6.33	5.78	1.24	2.33	2.52	4.65	3.41	11.59	3.08	3.98	1.74	3.01	50.66
Means,	2.97	3.24	3.42	3.60	3.61	4.22	4.24	5.21	3.53	3.30	2.44	3.53	43.21

Erie, Erie Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1873,	......	......	......	......	......	2.19	5.12	4.83	3.71	5.87	3.58	4.89	......
1874,	5.54	4.01	1.09	1.52	1.94	3.76	7.03	1.99	4.43	2.29	2.51	1.72	37.83
1875,	1.41	0.94	2.68	1.69	5.14	5.45	2.41	5.18	3.40	5.04	3.95	3.91	41.20
1876,	4.53	5.34	3.76	3.62	2.83	4.70	1.28	0.98	8.45	5.51	2.92	0.75	44.67
1877,	2.15	0.33	5.07	2.04	1.30	5.87	3.50	3.34	2.27	4.55	6.27	2.77	39.46
1878,	6.20	3.41	5.22	3.28	6.31	3.25	2.73	2.00	7.08	6.83	4.28	4.45	55.04
1879,	1.80	2.41	2.99	2.29	1.04	2.33	2.04	4.17	2.91	1.18	8.35	4.84	36.35
1880,	2.86	3.73	2.32	3.86	3.02	3.78	3.06	4.01	5.01	3.56	4.45	1.25	40.91
1881,	2.10	1.93	2.39	1.26	2.16	6.37	1.39	1.02	1.35	5.75	5.46	6.44	37.62
1882,	4.00	3.12	4.27	3.31	5.63	3.43	3.80	4.14	4.85	3.17	3.42	3.23	46.37
1883,	2.66	5.94	1.25	2.94	6.29	3.73	3.94	2.44	4.41	4.00	3.47	3.74	44.81
1884,	4.59	5.88	3.84	1.99	3.42	2.40	5.29	2.16	3.92	3.23	4.91	3.84	45.47
1885,	3.60	2.10	1.83	2.25	4.90	6.84	2.03	7.97	3.42	8.17	5.83	3.19	52.13
1886,	4.80	3.43	3.03	3.05	1.48	2.77	2.16	1.53	3.26	1.73	6.21	4.04	37.49
1887,	3.66	8.50	3.06	2.55	2.96	5.21	0.80	3.51	3.17	4.43	4.13	3.13	45.14
1888,	2.79	1.66	2.04	2.70	2.26	2.38	3.17	3.76	2.86	3.17	3.38	1.77	31.94
1889,	2.71	1.57	1.73	3.64	2.51	6.02	1.68	2.26	4.85	3.37	3.29	4.03	37.66
1890,	4.50	3.60	3.43	3.16	6.40	4.23	0.76	4.64	5.16	6.13	3.32	1.72	47.05
1891,	2.32	4.95	2.44	1.34	1.49	1.22	2.66	1.96	2.82	1.78	3.99	3.27	30.24
1892,	3.26	2.39	2.20	1.14	8.05	6.48	2.15	6.22	3.19	1.96	3.03	1.60	41.67
1893,	2.40	5.85	1.89	3.67	7.99	3.20	1.79	3.61	1.13	3.84	1.97	2.65	39.99
1894,	2.07	3.55	1.95	1.74	4.91	2.88	2.26	0.54	5.48	5.25	1.90	2.63	35.16
1895,	3.51	1.33	1.64	2.09	2.58	1.75	2.59	3.30	4.01	3.40	4.37	4.98	35.55
1896,	1.52	3.97	3.41	1.46	2.63	4.67	5.50	3.47	3.72	2.01	2.90	1.76	37.02
1897,	2.57	1.74	2.79	1.55	3.04	3.01	5.81	4.70	0.54	1.24	4.62	2.73	34.34
1898,	3.41	2.02	3.24	1.83	2.79	2.87	1.63	4.19	2.62	3.05	3.58	2.84	34.07
1899,	1.50	1.44	3.08	1.06	5.75	1.91	2.62	0.67	2.76	2.04	1.31	4.22	28.36
1900,	2.61	2.55	2.72	1.60	1.48	3.99	5.56	2.26	1.97	2.66	4.76	1.06	32.62
1901,	1.30	1.44	1.99	3.20	2.24	2.48	2.27	5.27	2.99	1.69	2.96	3.84	31.67
1902,	1.86	0.56	0.77	2.09	3.32	4.16	5.17	0.51	3.76	3.88	1.74	1.97	29.79
1903,	1.49	3.59	2.82	3.81	3.20	4.50	[illegible]	[illegible]	1.50	2.70	1.87	2.25	35.58
1904,	4.94	2.90	3.22	2.83	3.40	[illegible]	[illegible]	[illegible]	2.78	4.49	0.49	1.82	34.96
1905,	2.74	1.27	1.40	2.29	3.97	2.86	[illegible]	[illegible]	2.90	3.98	2.51	0.95	33.63
1906,	1.00	0.96	2.76	2.33	1.27	4.35	[illegible]	4.16	2.53	6.33	1.80	3.31	34.82
1907,	4.51	0.66	3.34	1.86	3.34	3.69	3.42	1.66	6.72	4.29	1.05	3.41	37.95
1908,	1.54	2.65	2.22	3.90	3.22	2.70	2.46	1.22	1.15	1.53	1.84	2.30	26.72
1909,	2.44	4.85	2.54	5.15	2.36	2.58	2.46	1.76	3.70	1.59	2.60	1.85	33.88
1910,	4.00	4.02	0.53	2.23	3.48	2.01	3.92	1.76	2.57	5.00	3.45	2.59	35.76
1911,	4.05	2.11	1.66	2.47	2.49	2.40	2.11	5.76	4.14	3.47	3.14	3.41	37.24
1912,	3.46	1.21	3.12	4.22	3.29	3.07	3.09	[illegible]	4.59	5.38	2.17	2.59	42.09
1913,	5.60	2.01	7.36	2.03	2.68	2.79	1.36	2.66	1.69	4.84	4.18	1.07	38.27
1914,	3.14	1.49	3.09	3.59	5.96	1.17	1.13	5.94	1.59	3.50	2.21	3.42	36.23
1915,	2.43	1.87	0.68	0.74	3.20	2.57	5.14	9.28	4.19	2.21	2.39	3.12	37.82
Means,	3.09	2.84	2.69	2.51	3.51	3.50	3.09	3.41	3.49	3.73	3.40	2.92	38.18

Everett, Bedford Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1897,	....	....	....	....	....	5.00	5.02	2.44	1.55	0.93	4.58	3.96	....
1898,	3.35	1.17	4.62	2.03	3.20	2.03	2.60	9.11	0.89	8.23	2.07	2.84	42.14
1899,	2.48	3.55	4.27	1.37	4.39	2.91	3.33	3.62	4.70	1.10	1.40	....	....
1900,	2.10	3.57	3.69	1.25	2.10	5.97	5.70	5.50	....	....	....	....	....
1901,	1.51	0.78	4.55	5.16	5.80	5.21	5.22	10.35	2.33	0.35	2.50	5.54	49.30
1902,	4.10	....	4.84	3.63	1.16	6.24	2.15	2.36	2.59	4.18	1.71	3.83	....
1903,	3.41	5.00	4.07	3.71	2.24	8.67	7.02	4.72	2.50	2.90	1.33	1.15	46.72
1904,	3.08	1.90	2.97	3.55	4.08	4.43	5.69	1.66	3.47	1.67	0.43	2.45	35.38
1905,	2.56	0.90	4.26	1.47	4.10	6.62	3.45	5.26	2.72	3.98	1.69	3.09	40.10
1906,	2.56	0.99	4.24	2.47	3.65	3.60	4.82	8.27	1.56	3.75	0.88	3.83	40.62
1907,	3.78	1.88	4.18	3.05	3.64	6.04	3.16	3.54	4.76	1.01	3.48	3.41	41.93
1908,	3.37	4.11	5.53	3.83	6.72	3.22	3.72	1.39	....	1.47	0.65	1.80	....
1909,	2.02	3.26	1.33	4.44	2.08	3.61	1.74	3.90	1.98	2.73	0.70	3.96	31.85
1910,	4.40	2.20	0.59	4.35	3.31	5.53	1.66	1.58	4.68	1.09	1.21	0.64	31.24
1911,	3.96	0.85	1.99	4.42	0.65	5.81	1.70	....	6.13	3.22	1.70	4.37	....
1912,	1.21	1.78	4.63	3.83	4.73	4.44	6.67	2.45	....	....	1.86	1.96	....
1913,	3.30	0.90	3.09	2.26	5.97	2.21	3.91	1.75	2.17	6.76	3.90	2.38	38.60
1914,	2.77	2.78	1.55	5.13	2.26	5.32	4.09	2.39	0.80	3.75	1.84	3.70	36.29
1915,	7.14	2.98	0.80	1.38	5.56	5.13	2.77	2.03	1.91	2.63	2.20	1.89	36.42
Means,	3.17	2.28	3.40	3.18	3.65	4.84	3.91	4.02	2.80	2.93	1.90	2.99	39.07

Falls Creek, Jefferson Co.—(Elevation 1,495 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1913,	....	....	....	....	....	....	....	....	....	....	3.36	2.74	....
1914,	2.39	1.89	2.10	4.66	5.79	5.10	1.60	4.70	1.24	1.70	1.69	2.93	35.78
1915,	4.39	3.09	0.85	0.44	4.59	5.38	4.69	5.03	1.81	3.33	1.80	3.53	38.93

Note: This station maintained and operated, in co-operation with the Buffalo, Rochester and Pittsburgh Railway Co., by the Water Supply Commission of Pennsylvania.

Fallsington, Bucks Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1883,	4.07	4.60	2.60	3.88	3.34	5.04	2.05	5.36	3.64	4.02	1.56	3.31	43.47
1884,	4.90	5.04	4.79	2.25	4.48	5.30	4.24	4.58	0.22	2.30	3.12	6.00	47.22
1885,	4.23	4.91	1.19	2.30	1.51	1.02	4.05	7.56	1.07	4.23	3.58	3.26	38.91
1886,	4.12	5.67	3.53	4.09	6.49	2.90	4.54	2.01	0.85	2.90	4.72	3.52	45.34
1887,	2.92	....	2.98	2.61	3.61	4.28	9.28	2.52	4.14	3.06	....	....	....
Means,	4.05	....	3.02	3.03	3.89	3.71	4.83	4.41	1.98	3.30	....	....	....

Farrandsville, Clinton Co.—(Elevation 583 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	0.60	3.98	2.70	1.12	1.64	4.82	5.68	3.34	4.58	5.26	3.44	1.23	38.39
1897,	1.71	1.83	3.34	3.35	4.53	3.10	5.70	3.72	4.63	0.97	5.75	3.20	41.83
1898,	3.56	1.38	5.29	2.93	3.55	3.05	5.55	5.08	0.79	6.11	2.74	2.70	42.73
1899,	2.21	3.13	4.26	1.38	3.55	3.83	2.22	4.67	4.33	0.75	4.00	....	......

Fleming, Center Co.—(Elevation 780 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1859,	3.00	2.80	4.48	5.20	3.23	3.92	1.60	3.11	4.86	1.44	2.43	3.68	39.75
1860,	2.06	2.41	1.93	6.17	7.42	5.94	2.86	3.32	1.95	3.22	4.38	4.39	46.05
1861,	2.90	3.09	1.36	3.91	2.97	2.51	2.92	6.61	7.08	2.68	4.75	0.97	41.75
1862,	5.42	2.36	3.46	4.66	2.37	8.28	4.02	0.64	1.25	7.10	1.31	1.46	42.33
1863,	3.78	3.72	4.28	5.06	2.02	2.22	2.79	3.23	1.16	6.62	2.25	5.30	42.43
1864,	1.49	0.84	4.61	3.55	6.73	1.65	3.61	6.24	6.66	3.50	2.68	3.14	44.70
1865,	2.76	2.48	6.51	2.95	3.01	3.97	5.36	2.70	5.09	2.56	1.36	2.51	41.26
1866,	0.55	2.15	2.76	2.80	1.44	4.81	4.44	5.06	5.22	4.25	5.10	3.35	41.93
1867,	2.23	3.46	3.04	4.28	6.13	2.43	....	....	....	....	....	....	....
Means,	2.69	2.59	3.60	4.29	3.92	3.97	3.45	3.86	4.16	3.92	3.03	3.10	42.58

Forks of Neshaminy, Bucks Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1884,	....	....	....	....	....	....	....	....	0.18	2.55	3.68	6.80	....
1885,	3.93	5.07	1.03	1.96	2.24	2.29	4.08	5.50	1.24	5.38	3.97	3.04	39.71
1886,	6.49	6.50	3.89	2.89	5.76	4.82	4.31	1.52	0.63	2.46	4.28	3.85	47.40
1889,	3.55	2.03	3.35	4.68	5.70	4.49	10.36	5.30	8.76	4.77	7.43	1.65	62.07
1890,	2.40	4.28	5.66	2.91	5.00	5.74	4.41	5.90	3.04	5.77	0.95	2.51	48.57
1891,	6.11	4.50	4.61	1.65	2.66	2.64	4.44	4.90	3.08	3.68	2.04	4.88	45.19
1892,	4.60	1.27	4.18	2.46	6.33	2.07	4.11	3.54	3.13	0.49	6.77	1.75	41.30
1893,	3.46	5.36	2.16	5.66	4.22	3.40	1.56	6.93	3.51	3.35	4.06	2.97	46.64
1894,	1.82	3.77	1.70	3.20	14.80	3.83	5.92	2.17	6.94	5.38	3.28	4.62	57.43
1895,	4.98	0.83	3.51	5.96	2.80	4.72	3.76	4.26	0.77	3.33	2.05	2.56	39.53
1896,	1.80	9.08	5.59	1.81	3.16	4.46	4.62	0.83	8.49	2.17	4.55	1.12	47.68
1897,	3.39	2.94	2.28	2.93	6.34	6.42	12.42	3.09	1.31	2.41	5.12	5.16	53.81
1898,	3.88	3.99	3.10	3.55	7.54	0.82	4.42	6.65	1.90	4.61	6.48	3.40	50.34
1899,	4.25	8.16	7.73	1.72	2.35	1.74	4.49	2.89	6.65	2.04	2.26	2.26	46.54
1900,	*3.51	4.60	2.92	2.43	7.63	5.77	6.12	2.60	3.07	2.69	2.66	2.30	46.30
1901,	2.78	0.99	6.23	4.77	5.83	2.39	7.34	8.37	6.41	1.38	2.40	7.94	56.83
1902,	2.64	5.19	3.45	3.39	2.02	6.89	4.70	4.59	6.74	6.05	1.75	6.69	53.10
1903,	3.84	4.65	3.88	4.52	0.83	5.93	6.07	4.71	3.55	7.73	1.08	3.67	50.46
1904,	3.98	2.25	3.96	2.59	3.12	4.41	5.45	8.18	4.80	7.11	2.73	2.35	50.93
1905,	3.20	2.40	3.79	3.64	2.15	2.59	2.67	7.57	2.98	3.70	2.20	3.33	40.22
1906,	2.81	2.52	4.99	3.01	4.70	6.54	6.00	6.65	0.61	4.48	2.15	4.07	48.53
1907,	3.74	3.02	2.96	3.38	4.19	5.42	2.52	3.79	7.19	4.86	5.90	4.55	51.51
1908,	3.28	4.87	3.91	3.56	6.80	2.32	6.17	8.06	2.27	4.62	1.11	3.29	50.26
1909,	2.71	5.00	3.14	5.51	3.34	4.01	2.48	3.47	2.87	1.04	3.24	5.06	41.87
1910,	5.85	3.58	0.30	6.91	2.92	4.19	0.53	6.46	2.27	4.00	3.19	2.15	42.35
1911,	3.15	1.92	2.34	3.80	2.50	4.21	2.14	10.82	2.27	4.78	5.67	3.70	47.30
1912,	2.01	1.97	8.02	4.12	3.16	1.85	4.20	2.59	3.89	3.42	3.86	5.14	44.23
1913,	3.23	1.79	4.64	5.80	0.48	1.88	4.40	3.73	6.28	8.13	3.60	2.60	46.56
Means,	3.61	3.80	3.83	3.66	4.39	3.94	4.80	5.00	3.71	4.01	3.52	3.66	47.93

Note: *Interpolated.

Fort Mifflin, Philadelphia Co.—(Elevation 20 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1843,	1.98	1.92	4.45	1.58	3.16	1.74	4.01	6.03	4.95	2.84	4.08	4.30	41.04
1844,	5.60	2.00	4.15	2.15	3.82	4.90	4.20	2.80	4.30	6.00	4.00	2.90	46.82
1849,	0.71	2.69	6.05	1.64	4.04	2.26	2.16	7.36	0.48	6.52	2.25	6.18	42.34
1850,	4.29	2.52	5.39	2.98	7.65	1.65	5.23	6.84	8.45	1.54	....	4.66	....
1851,	1.25	4.03	5.60	3.55	4.65	3.00	3.65	3.03	0.94	3.03	3.41	1.90	38.04
1852,	2.40	2.48	4.60	8.20	5.30	4.55	5.45	4.40	1.40	3.30	3.80	5.45	51.33
1853,	0.80	3.54	2.20	3.98	5.70	2.00	8.71	4.42	1.80	2.84	....	....	....
Means,	2.43	2.74	4.63	3.44	4.90	2.87	4.77	4.98	3.19	3.72	3.51	4.23	45.41

Fountain Dale, Adams Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1867,	....	....	....	....	5.54	2.52	2.92	5.55	1.41	4.70	1.06	2.10	....
1868,	....	....	....	4.00	7.83	4.28	2.67	3.01	6.86	1.60	5.12	3.10	....
1869,	3.36	4.98	5.08	1.77	4.40	3.03	3.76	1.89	2.84	6.47	2.72	8.53	43.83
1870,	4.19	3.50	4.92	5.43	4.28	6.70	3.66	3.40	5.58	2.02	1.33	2.10	47.11
1871,	4.00	3.85	5.20	3.14	2.97	2.96	2.60	4.40	....	3.10	....	1.21	....
1872,	1.57	....	....	....	2.85	....	....	4.32	4.45	....	....	....	....

Franklin, Cambria Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1908,	4.11	5.41	8.92	3.00	4.65	3.33	3.21	3.20	0.52	0.02	0.76	3.59	40.72
1909,	2.14	4.17	2.68	5.32	0.90	1.72	2.05	1.93	1.46	2.96	0.52	2.60	28.44
1910,	5.99	2.17	0.44	3.05	2.14	2.70	1.25	2.18	4.90	0.06	1.08	2.08	28.04
1911,	3.25	1.69	2.77	3.38	1.66	4.64	0.03	5.36	6.34	....	....	....	....

Note: This record furnished by the Cambria Steel Company, Johnstown, Pa.

Franklin, Venango Co.—(Elevation 980 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1840,	....	2.43	....	....	3.42	5.72	2.16	5.56	1.34	3.32	2.81	1.83	....
1841,	2.02	0.50	4.13	1.99	....	1.92	....	1.49	1.51	1.49	2.07	3.80	....
1868,	....	....	....	....	....	....	....	....	4.88	2.68	4.45	3.10	....
1869,	3.77	3.70	4.55	1.57	5.08	5.60	3.55	2.88	10.19	1.97	4.52	4.12	51.50
1870,	7.75	4.07	4.63	2.62	3.82	5.50	11.63	5.96	2.02	4.91	2.35	4.46	59.72
1871,	3.38	2.48	3.40	2.27	2.15	3.53	3.49	5.10	0.58	1.65	3.85	2.86	34.74
1872,	1.17	1.40	2.66	2.65	2.23	3.47	8.61	4.58	4.19	5.15	2.33	3.05	41.51
1873,	3.86	2.69	5.25	4.12	1.71	6.00	7.19	3.19	2.62	7.06	5.29	5.93	54.91
1874,	6.14	4.73	3.00	4.87	5.00	3.47	5.65	3.50	3.55	1.00	4.30	2.19	47.40
1875,	2.56	1.56	4.56	2.16	3.25	4.62	3.57	5.63	4.63	4.13	3.13	5.25	44.85
1876,	4.00	4.19	4.81	3.31	1.75	3.50	4.37	2.50	9.56	2.25	3.19	3.50	46.93
1877,	4.83	1.64	6.26	1.20	0.47	6.52	6.72	1.10	3.06	4.06	5.53	2.32	43.75
1878,	3.67	2.03	2.08	2.74	2.76	2.91	5.66	0.84	6.71	2.04	3.26	5.42	40.12
1879,	3.48	5.11	3.10	1.89	0.86	3.27	3.75	1.55	2.27	1.95	5.41	5.02	37.66
1880,	3.64	2.92	2.61	2.21	2.78	4.94	1.83	3.18	2.32	2.40	2.64	2.50	33.97
1881,	3.58	3.35	3.32	2.16	2.68	9.33	1.05	0.34	2.76	3.08	3.06	4.96	39.67
1882,	3.96	3.02	3.10	1.60	5.02	7.88	2.90	6.25	4.90	2.68	2.04	2.48	45.83
1883,	2.22	1.72	0.87	1.80	6.38	7.07	7.17	1.64	2.82	3.10	2.78	3.71	41.28
1884,	5.20	4.55	3.16	1.47	2.39	5.54	4.85	3.33	2.64	3.08	1.77	3.72	41.50
1885,	4.38	2.08	1.70	2.18	3.70	6.75	2.50	6.22	3.09	4.05	3.33	2.58	42.56
1886,	4.86	3.32	3.40	4.24	1.03	4.33	3.96	1.62	3.02	1.20	4.49	3.36	38.83
1887,	2.65	9.24	2.87	3.00	3.04	4.04	2.66	5.18	2.44	1.40	2.44	2.16	41.12
1888,	4.42	4.08	2.41	2.38	2.69	6.02	2.77	5.52	4.95	4.58	3.98	2.50	46.30
1889,	4.12	1.68	1.56	3.10	2.19	6.25	8.86	2.12	4.39	3.10	2.88	4.53	43.78
1890,	4.50	4.94	4.78	4.07	9.98	2.96	4.19	4.99	6.60	....	....	....	....
1897,	1.95	2.50	4.91	3.22	3.66	2.90	5.74	5.00	0.77	0.28	5.45	3.20	39.58
1898,	4.51	1.48	4.29	1.53	4.08	3.41	2.18	5.87	2.10	4.42	3.89	1.31	39.07
1899,	0.82	....	4.19	1.06	5.28	3.00	4.75	1.77	2.98	2.58	0.61	3.77	....
1900,	1.94	3.39	2.46	0.60	1.90	2.86	5.35	2.18	3.09	2.31	4.42	1.20	31.70
1901,	2.31	1.12	4.51	5.64	4.00	1.72	2.87	7.30	5.66	0.63	2.98	3.51	42.25
1902,	2.16	1.59	1.99	1.34	3.76	6.46	8.96	1.19	3.76	2.42	1.96	3.57	39.14
1903,	2.00	4.33	....	3.77	1.98	7.65	6.98	6.02	....	2.77	2.51	2.07	....
1904,	5.42	3.87	3.75	4.11	6.00	2.14	4.24	4.84	2.35	1.26	0.74	2.11	40.83
1905,	2.97	2.07	2.99	2.02	3.11	4.21	8.57	4.89	3.11	4.30	3.57	3.28	45.09
1906,	2.29	0.84	3.14	2.36	2.89	5.41	1.78	6.18	4.20	....	2.57	3.64	....
1907,	4.81	1.63	4.07	3.90	4.59	4.54	4.96	1.06	3.75	3.78	2.65	3.64	43.41
1908,	2.70	2.88	4.94	4.73	6.79	3.23	4.73	1.95	1.30	1.60	1.34	4.28	40.47
1909,	3.22	5.70	3.09	5.93	3.22	3.92	3.35	2.58	1.42	1.32	1.66	2.42	37.83
1910,	7.41	4.25	0.59	3.30	2.83	2.18	3.46	1.50	4.84	3.36	3.11	3.57	40.40
1911,	3.87	2.95	3.24	4.56	1.32	4.96	1.58	6.76	6.66	5.15	3.65	4.40	49.10
1912,	2.66	2.09	3.75	5.89	2.54	2.44	5.11	7.43	4.04	3.85	1.56	3.33	44.69
1913,	7.63	2.35	7.60	2.65	2.85	4.33	5.26	2.19	1.67	5.27	3.42	2.13	47.35
1914,	3.83	1.94	2.32	5.94	4.34	3.78	1.72	4.75	1.20	3.23	1.65	4.49	39.19
1915,	4.34	3.85	1.27	1.01	3.28	4.42	5.12	5.76	2.80	2.38	3.13	4.20	41.56
Means,	3.74	3.00	3.45	2.93	3.40	4.51	4.66	3.80	3.55	2.93	3.09	3.38	42.44

Frederick, Montgomery Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1883.	....	....	....	....	....	....	....	4.00	3.96	4.77	1.75	5.76	....
1884.	6.02	5.36	4.70	2.25	3.48	5.59	6.21	2.43	0.44	3.41	3.40	5.92	49.21
1885.	3.73	4.73	1.12	2.42	2.62	1.75	2.29	7.39	0.84	4.46	4.45	3.11	38.91
1886.	3.71	5.11	3.80	2.85	6.88	5.46	5.41	1.14	1.41	2.43	5.42	2.90	46.51
1889.	3.44	1.84	2.74	3.86	4.65	6.41	12.69	3.83	6.68	4.62	7.63	1.88	60.27
1890.	2.68	4.35	6.43	2.36	6.97	2.78	5.39	7.04	3.35	5.36	1.16	2.44	50.21
1891.	5.60	4.50	6.09	1.85	1.60	3.83	7.71	7.95	2.01	3.22	1.63	4.62	50.61
1892.	5.16	0.83	4.66	1.95	5.53	4.53	6.67	2.46	1.30	0.32	6.65	1.71	41.57
1893.	2.34	5.21	2.64	4.01	4.51	5.28	1.68	4.46	3.10	2.45	4.48	2.99	43.15
1894.	1.52	4.11	1.49	2.03	10.21	2.91	3.98	2.75	7.12	4.99	2.64	5.04	48.79
1895.	4 19	0.88	3.17	5.15	3.76	4.25	2.84	3.85	0.84	3.17	1.82	2.66	36.58
1896.	0.83	5.82	4.28	1.88	2.72	5.24	7.74	0.66	5.18	4.05	3.80	0.56	42.76
1897.	1.81	3.07	2.29	3.06	8.85	3.22	9.97	2.19	1.22	2.08	5.78	4.26	47.80
1898.	3.76	3.34	2.72	3.49	6.21	0.63	2.87	7.08	2.62	4.34	6.17	3.99	47.22
1899.	2.84	4.54	6.14	1.47	3.30	3.11	3.27	5.23	5.61	1.14	2.32	1.68	40.65
1901.	2.25	0.55	3.99	4.50	4.83	2.22	5.08	4.25	2.57	1.65	2.43	7.35	41.67
1902.	2.80	5.72	3.41	2.61	2.42	4.74	2.77	1.94	7.83	6.26	2.13	6.35	48.98
1903.	4.29	5.16	3.53	3.67	1.26	6.99	4.77	4.59	1.66	5.99	1.21	2.70	45.82
1904.	3.51	1.87	3.16	2.28	4.04	3.70	4.33	4.47	6.71	3.78	1.79	2.10	41.74
1905.	4.86	2.00	3.42	2.55	1.01	2.59	2.49	8.87	3.05	3.66	2.86	2.61	39.97
1906.	2.90	2.55	4.30	3.74	4.15	5.10	6.12	3.03	3.48	5.59	1.34	4.76	47.12
1907.	3.39	1.84	3.36	3.29	2.49	4.49	1.34	4.61	10.09	3.66	6.27	4.16	48.99
1908.	2.35	4.59	3.44	2.56	4.80	2.05	7.80	4.93	1.86	1.87	0.74	2.46	39.45
1909.	3.28	4.32	3.23	4.54	3.54	2.96	1.97	0.46	1.85	1.18	1.51	5.85	34.68
1910.	4.33	3.77	0.67	4.64	2.78	5.67	0.74	5.50	2.52	2.23	3.15	2.07	38.07
1911.	2.81	2.02	2.63	3.61	2.67	3.64	3.23	7.76	2.07	4.66	4.07	3.44	42.51
1912.	1.60	2.17	7.24	3.49	3.32	2.75	6.31	4.64	6.08	3.37	3.29	4.67	49.13
1913.	3.02	1.62	5.33	7.45	2.56	1.01	2.13	3.57	2.81	7.33	1.90	2.64	41.38
Means.	3.30	3.40	3.70	3.24	4.11	3.81	4.73	4.33	3.51	3.65	3.27	3.60	44.65

Note: Station called Spring Mount 1901-13 inclusive.

Freeland, Luzerne Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914.	....	....	....	....	....	....	8.41	4.56	0.91	2.12	1.81	4.82	....
1915.	4.73	4.99	1.04	3.16	3.51	2.78	7.49	10.29	2.06	1.29	2.67	5.38	49.38

Freeport, Armstrong Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1877,	......	......	......	......	......	......	......	1.32	2.81	0.30	4.03	1.88	......
1878,	3.74	1.94	2.61	3.51	4.18	3.84	1.35	1.43	3.14	1.71	4.52	4.66	36.63
1879,	3.75	2.39	3.11	1.84	0.86	5.25	7.18	3.97	0.86	0.82	2.75	6.46	39.25
1880,	3.92	4.01	4.17	2.99	4.02	5.36	2.80	6.12	2.10	2.88	2.56	3.75	44.68
1881,	3.89	3.43	4.15	2.24	2.59	5.51	2.03	0.92	1.70	5.35	4.85	6.03	42.69
1882,	5.74	3.93	3.71	1.52	7.47	3.79	4.62	5.98	3.35	0.73	2.70	1.56	45.10
1883,	3.24	4.96	1.89	4.04	6.63	......	......	......	......	......	2.04	2.98	......
1884,	6.23	5.86	4.28	2.78	3.39	2.12	4.54	1.91	2.46	3.61	1.66	4.77	43.61
1885,	4.99	1.87	1.57	2.46	4.38	2.91	5.25	8.77	1.87	4.73	2.86	2.14	43.80
1886,	3.71	2.09	3.02	4.72	3.78	4.95	5.68	3.03	5.47	1.20	5.87	2.50	46.02
1887,	2.17	6.74	1.55	3.00	2.49	3.91	4.00	4.60	2.11	0.91	1.98	0.95	34.41
1888,	7.68	2.20	3.45	2.08	3.33	4.14	......	......	......	3.13	4.00	1.92	......
1889,	2.86	1.90	2.62	4.04	1.80	3.58	8.22	3.19	4.19	2.99	5.37	3.45	44.21
1890,	4.89	5.46	4.95	5.76	6.15	3.95	3.32	4.50	5.05	6.48	2.14	5.28	57.93
1891,	3.09	7.70	4.26	2.99	1.19	4.19	4.32	3.08	2.54	2.29	3.29	3.45	42.39
1892,	4.17	3.17	2.90	1.83	4.81	3.40	3.19	1.87	3.15	0.58	3.52	2.48	35.07
1893,	3.32	6.77	1.47	5.65	4.72	3.91	2.88	3.23	2.37	3.99	1.57	3.67	43.55
1894,	3.12	3.32	2.28	3.24	4.27	2.27	0.98	0.17	3.91	2.18	2.46	3.98	32.18
1895,	4.93	1.24	2.55	2.33	2.39	3.07	2.74	3.18	0.98	0.47	3.68	3.27	30.83
1896,	1.64	3.08	4.20	2.24	4.43	3.90	7.79	2.66	4.73	2.42	3.58	1.84	42.51
1897,	2.02	3.99	5.05	4.29	3.65	3.46	8.08	2.69	2.63	0.29	6.42	3.84	46.31
1898,	5.68	2.30	6.72	1.82	3.39	3.98	3.25	6.31	1.62	5.06	3.43	2.76	46.32
1899,	3.27	3.46	5.84	1.77	4.84	3.54	3.34	3.48	2.09	1.12	3.62	3.27	39.64
1900,	2.66	3.59	3.78	1.33	1.69	4.33	6.66	2.27	1.03	3.78	5.00	1.76	37.88
1901,	2.99	0.97	4.52	8.93	7.81	7.13	2.92	7.57	2.44	0.64	3.13	4.38	53.73
1902,	1.96	1.25	4.63	3.58	3.38	5.22	5.14	2.43	2.90	3.35	1.32	5.78	40.94
1903,	3.37	4.75	4.95	2.70	2.22	4.50	3.65	6.07	1.08	3.06	2.91	2.55	42.10
1904,	3.35	2.73	6.05	4.60	3.87	5.43	4.26	3.39	2.38	1.77	0.86	3.01	41.70
1905,	2.79	2.09	2.52	3.12	2.92	5.77	7.13	3.29	3.50	3.78	2.98	4.21	44.01
1906,	2.83	1.34	3.88	2.47	3.57	5.36	6.84	5.00	3.13	3.80	1.72	3.57	43.51
1907,	6.67	1.30	6.68	2.74	3.44	3.41	2.87	2.48	4.17	2.81	2.27	3.91	42.75
1908,	2.70	3.43	6.53	4.41	7.49	3.22	6.01	2.13	1.26	0.91	1.02	4.01	43.12
1909,	3.72	5.99	4.02	6.35	3.11	3.25	2.82	1.98	1.76	2.16	1.34	2.99	39.49
1910,	7.12	4.03	0.58	3.61	4.05	3.80	2.72	1.81	6.47	2.03	2.55	2.85	41.52
1911,	4.71	2.45	2.34	4.93	0.61	4.50	1.41	5.30	8.71	6.02	2.91	4.67	48.56
1912,	2.00	2.02	4.98	4.09	1.96	4.07	6.79	5.30	4.05	2.89	1.20	3.56	42.91
1913,	7.79	2.11	4.36	2.63	4.39	2.62	3.13	0.86	2.77	5.42	2.96	2.58	41.62
1914,	1.78	3.09	2.56	4.74	4.28	4.26	2.31	4.85	1.25	2.61	1.52	5.08	38.33
1915,	4.67	2.62	1.78	1.01	4.21	4.05	4.32	3.80	2.52	4.04	2.27	4.24	39.53
Means,	3.93	3.30	3.70	3.37	3.78	4.12	4.28	3.55	2.93	2.69	2.95	3.50	42.10

Ganoga Lake, Sullivan Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1908,	....	....	....	....	4.72	2.04	7.00	3.03	1.99	4.11	0.99	2.51	......
1909,	3.74	6.12	3.54	5.50	3.45	6.62	3.09	1.34	3.27	2.40	1.36	4.95	45.38
1910,	7.60	7.20	0.60	9.35	5.74	7.20	0.98	3.05	6.25	1.14	4.95	2.45	56.51
1911,	2.05	3.10	3.53	4.15	0.59	6.45	2.53	8.44	5.50	7.01	0.98	3.56	47.89
1912,	2.79	3.04	5.46	4.89	3.76	0.50	1.10	7.11	10.17	1.95	4.49	4.87	50.13
1913,	7.22	2.54	5.86	9.36	4.21	2.33	3.98	2.31	2.66	2.78	1.62	5.02	49.89
1914,	2.20	3.40	5.03	6.02	6.69	2.14	5.15	5.73	1.13	1.35	2.70	3.40	44.94
1915,	7.76	9.87	1.60	2.82	3.93	6.52	7.27	5.61	2.08	2.14	1.96	5.05	56.60
Means,	4.77	5.04	3.66	6.01	4.14	4.22	3.89	4.58	4.13	2.86	2.33	3.98	49.66

Note: This record furnished by Col. R. B. Ricketts.

George School, Bucks Co.—(Elevation 190 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1907,	4.12	2.57	2.98	3.61	4.70	4.78	3.43	4.45	7.20	4.77	4.69	4.54	51.84
1908,	4.00	4.18	3.79	3.04	7.00	3.87	3.86	6.07	2.37	2.83	0.99	3.97	45.97
1909,	2.32	4.91	3.39	4.83	2.23	4.02	1.25	3.65	2.78	0.95	3.50	4.90	38.73
1910,	....	2.68	1.33	5.27	2.06	4.64	0.71	5.37	2.44	3.06	3.26	2.97	....
1911,	3.33	2.15	2.81	3.57	1.17	4.90	2.85	11.84	2.61	4.27	5.68	2.98	48.16
1912,	1.80	2.59	8.58	3.44	3.13	1.31	3.89	1.68	2.72	3.01	1.60	4.40	38.14
1913,	3.19	2.50	4.54	5.19	3.69	1.21	3.71	4.08	3.91	7.03	3.42	1.97	44.52
1914,	2.40	2.19	2.57	2.54	1.86	2.20	5.50	2.58	0.35	2.04	1.64	5.47	31.34
1915,	5.00	5.21	0.57	2.57	4.86	2.01	6.91	8.93	1.01	1.98	1.48	3.35	43.88
Means,	3.27	3.22	3.40	3.78	3.41	3.22	3.57	5.41	2.82	3.33	2.92	3.84	42.19

Gettysburg, Adams Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1839,	3.38	1.73	0.84	2.40	3.39	4.83	4.52	6.13	2.39	0.83	2.65	4.97	38.06
1840,	2.46	1.98	2.52	3.94	2.64	2.38	1.00	2.90	1.54	7.12	2.18	3.60	34.32
1841,	6.35	1.45	5.37	4.68	3.43	2.89	2.62	3.00	4.15	1.52	3.92	6.06	45.44
1842,	1.73	1.92	2.74	5.78	3.24	4.14	2.69	4.13	0.94	2.30	3.90	2.71	36.22
1843,	3.25	2.55	4.82	3.24	5.20	1.86	3.60	4.51	8.71	3.25	3.52	3.09	47.60
1844,	3.19	1.56	3.47	1.79	3.99	2.36	3.32	2.46	2.55	3.67	1.45	1.66	31.47
1845,	2.70	2.34	2.79	2.41	1.10	4.57	0.93	1.87	0.72	6.18	2.22	2.35	30.18
1846,	4.23	2.66	4.93	2.95	5.78	6.20	4.46	4.39	1.21	3.89	8.48	3.07	52.25
1847,	4.08	5.57	2.40	0.65	2.51	2.00	4.72	2.87	8.37	5.82	5.81	6.08	50.88
1848,	1.83	1.20	3.54	0.62	2.42	2.28	5.38	4.14	1.54	2.73	3.15	4.78	33.61
1849,	0.98	2.57	3.64	1.03	4.33	1.85	2.45	1.91	0.86	5.79	0.94	5.18	31.53
1850,	5.57	4.67	3.89	3.72	5.42	2.04	4.74	2.17	3.78	2.93	2.05	4.65	45.63
1851,	0.63	2.66	3.77	3.64	2.31	1.16	4.26	2.51	1.95	2.19	3.72	2.19	30.99
1852,	2.49	2.70	4.15	5.93	3.49	3.55	1.85	4.72	1.98	1.74	6.47	4.24	43.31
1853,	1.74	3.23	1.29	4.48	2.87	0.26	5.67	3.38	3.89	2.79	1.47	1.01	32.08
1854,	3.26	3.60	1.90	5.37	3.31	2.84	1.62	0.90	2.46	2.27	3.63	2.70	33.86
1855,	3.57	2.41	2.04	2.08	1.69	7.72	3.79	10.89	5.92	2.22	1.27	4.02	47.62
1856,	2.75	1.25	1.79	2.91	2.87	2.86	3.78	2.48	1.12	1.59	2.46	2.77	28.63
1857,	3.03	0.98	1.62	3.12	6.23	7.44	5.03	1.98	1.39	1.12	2.35	3.94	38.23
1858,	1.65	1.92	0.61	2.87	10.60	4.39	3.91	4.27	2.67	4.57	3.35	4.86	45.67
1859,	3.50	3.91	5.59	5.75	3.75	3.73	1.76	2.73	6.34	0.63	1.20	3.55	42.44
1860,	3.13	2.63	1.41	3.93	5.65	2.76	1.35	3.60	2.73	3.92	4.00	3.07	38.18
1861,	4.36	2.42	2.11	4.61	4.23	2.47	4.84	3.15	2.98	3.10	1.98	0.76	37.01
1862,	4.36	2.31	2.21	5.49	1.83	7.12	2.06	0.45	1.17	2.26	1.73	0.90	31.89
1863,	....	4.20	5.64	5.28	3.09	2.71	6.67	....	....	....	....	....	....
1864,	....	....	....	....	....	....	1.47	3.36	3.01	2.67	2.27	3.42	....
1865,	4.24	3.06	....	....	....	....	....	....	....	....	....	....	....
1889,	....	....	....	....	....	....	....	3.51	6.81	4.16	6.47	2.01	....
1890,	2.25	4.51	4.66	3.31	8.10	3.91	2.78	8.95	2.51	....	....	....	....
1893,	2.04	3.46	2.24	5.20	7.36	3.26	1.18	3.18	3.29	4.00	2.97	1.77	39.95
1894,	1.56	3.89	1.21	3.94	6.84	1.78	1.47	2.03	7.60	....	....	....	....
1895,	....	....	1.83	3.27	3.16	3.10	1.37	2.27	1.24	2.13	1.55	2.37	....
1896,	0.75	3.71	....	....	....	....	....	....	....	....	....	0.60	....
1903,	....	....	....	....	....	6.47	4.48	7.08	2.26	2.86	1.06	2.16	....
1904,	3.57	1.72	3.04	2.48	2.07	6.00	4.46	3.92	2.78	2.50	0.71	2.93	36.18
1905,	4.37	1.41	3.51	2.95	1.88	5.77	6.90	4.90	2.80	4.15	2.18	4.45	45.27
1906,	2.93	1.21	4.61	4.53	3.28	5.36	2.85	8.54	1.33	5.26	0.73	4.23	44.86
1907,	3.17	2.53	3.44	2.21	3.85	5.57	4.79	1.69	7.32	2.25	3.72	5.82	46.36
1908,	2.79	7.11	4.41	2.80	10.95	1.09	6.24	2.80	1.93	2.79	0.85	2.17	45.93
1909,	2.59	4.51	3.64	3.62	2.30	4.06	0.85	2.11	4.90	2.37	0.84	4.24	36.02
1910,	4.40	3.78	0.48	6.09	2.44	6.75	1.87	1.51	2.26	1.53	0.84	2.11	34.06
1911,	3.91	2.12	3.11	3.22	3.50	4.41	2.17	12.99	3.49	3.45	2.77	3.68	48.82
1912,	1.79	2.73	6.18	3.11	2.81	8.58	4.52	2.27	7.80	1.17	1.91	4.51	47.38
1913,	2.82	1.13	8.00	4.37	3.63	1.39	3.87	6.45	2.53	6.10	2.09	3.48	45.86
1914,	3.89	2.23	1.86	4.02	3.26	4.09	4.17	3.41	1.46	2.32	2.01	4.33	37.05
1915,	7.22	5.78	1.15	1.24	4.19	5.19	2.85	8.92	3.73	3.40	2.04	3.85	49.56
Means,	3.13	2.84	3.13	3.54	4.02	3.89	3.38	3.99	3.27	3.11	2.66	3.34	40.30

Girardville, Schuylkill Co.—(Elevation 1,000 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1887,	5.03	5.32	1.32	3.13	3.65	6.52	3.51	8.79	3.41	1.16	1.98	4.91	48.73
1888,	3.50	3.45	4.35	3.29	7.08	6.50	3.34	6.58	8.18	4.83	4.90	4.62	60.62
1889,	3.80	1.66	2.77	7.23	6.93	8.01	9.46	6.03	6.50	4.41	10.16	3.31	70.27
1890,	2.94	4.56	5.25	4.40	12.41	4.56	6.36	6.48	4.51	6.24	1.67	4.65	64.03
1891,	8.74	4.36	3.80	3.54	1.80	3.70	9.64	9.47	1.99	3.77	5.12	6.23	62.16
1892,	8.46	1.46	7.60	1.77	4.95	7.62	4.35	2.56	3.42	0.41	4.70	2.02	49.32
1893,	4.09	7.00	4.82	3.58	8.51	2.17	4.87	4.11	3.10	3.87	3.57	3.23	52.92
1894,	2.72	6.52	1.13	5.43	12.69	1.79	2.50	1.47	6.74	7.66	2.99	4.75	54.39
1895,	3.82	1.54	2.48	4.39	3.33	2.77	2.73	4.69	2.69	3.47	2.71	4.65	39.27
1896,	1.39	6.40	6.00	1.88	2.23	5.14	11.30	1.28	3.26	5.55	8.06	1.20	53.68
1897,	2.59	3.46	2.89	3.77	8.27	4.17	6.58	2.64	2.48	1.98	6.12	5.92	49.87
1898,	5.43	1.77	4.26	4.21	6.33	2.38	4.81	11.32	1.14	6.18	5.00	3.02	55.88
1899,	2.76	6.69	4.85	2.02	3.53	5.40	4.99	7.40	6.65	1.02	2.63	4.19	52.13
1900,	2.65	5.63	5.50	0.94	1.29	3.70	6.96	4.77	1.22	3.32	3.77	3.03	42.78
1901,	2.48	1.03	5.68	2.52	6.59	1.39	3.21	12.05	4.20	2.81	2.51	7.87	51.34
1902,	4.22	6.45	6.39	3.57	1.31	7.76	5.02	2.83	8.44	6.92	1.90	7.04	61.85
1903,	4.28	5.86	4.72	4.23	2.28	7.95	6.19	5.15	3.05	6.75	1.87	4.83	57.16
1904,	5.78	2.91	5.39	3.42	4.01	5.95	4.26	4.04	6.50	4.42	2.55	3.28	52.51
1905,	6.29	2.12	6.57	2.71	2.50	2.47	5.27	6.79	4.32	5.90	3.01	4.99	52.94
1906,	3.74	3.80	7.22	6.21	3.41	8.17	5.20	2.75	4.55	5.96	1.83	5.24	58.08
1907,	4.66	2.66	3.31	2.46	1.91	4.99	4.17	3.38	8.50	3.84	4.41	7.89	52.18
1908,	3.33	7.70	4.40	3.08	5.78	1.10	6.08	3.47	2.05	4.14	0.82	3.71	45.66
1909,	3.79	6.95	4.64	7.56	3.59	3.94	3.36	1.60	2.52	4.48	1.64	4.04	48.11
1910,	6.88	4.44	0.79	7.75	5.70	5.86	1.96	3.32	5.35	1.94	3.50	3.63	51.42
1911,	4.41	2.33	3.31	4.37	3.36	3.36	5.07	10.12	3.69	7.23	4.11	3.72	55.08
1912,	2.17	3.51	6.21	6.10	3.17	2.98	7.62	7.63	6.19	3.36	3.49	5.12	57.56
1913,	5.55	1.94	7.24	6.63	3.27	2.00	7.76	2.04	6.15	6.59	2.87	4.03	56.06
1914,	4.46	3.41	4.08	5.46	3.79	5.68	6.20	5.07	1.62	2.55	2.14	6.07	50.53
1915,	8.03	6.68	1.77	3.51	4.55	3.99	5.91	11.39	2.98	1.91	2.74	6.19	59.65
Means,	4.41	4.16	4.44	4.11	4.73	4.55	5.44	5.49	4.29	4.23	3.55	4.00	54.00

Gordon, Schuylkill Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1903,	....	....	....	....	....	....	6.48	5.47	2.52	5.36	1.50	4.78	....
1904,	....	2.60	4.49	3.56	3.81	4.15	4.37	3.89	7.40	3.80	1.03	2.40	....
1905,	7.55	1.96	5.71	2.42	1.66	2.70	4.39	7.67	5.27	6.12	2.98	4.67	52.99
1906,	3.05	3.16	7.37	6.96	2.58	8.80	4.30	3.39	3.69	5.98	1.75	4.95	55.98
1907,	3.89	3.34	5.20	2.85	2.55	4.98	2.31	3.23	8.09	4.27	4.59	7.43	52.73
1908,	2.90	7.23	5.09	3.43	6.98	1.79	5.65	3.52	2.53	4.94	1.03	2.99	48.08
1909,	3.11	7.91	4.76	7.32	4.35	3.41	2.74	0.48	2.65	3.75	1.58	4.38	46.34
1910,	5.92	4.02	0.59	8.06	6.08	6.28	1.88	4.12	4.69	1.78	3.01	4.04	50.47
1911,	3.67	2.26	3.21	4.58	2.90	3.71	5.86	10.33	4.25	7.42	4.54	3.30	56.03
1912,	1.91	2.67	6.37	5.09	3.38	2.40	4.80	6.28	5.80	2.41	3.40	4.85	49.36
1913,	3.88	2.08	6.77	7.18	3.64	2.04	6.87	2.32	5.15	6.33	2.62	3.18	52.06
1914,	3.45	2.23	2.56	5.05	8.42	4.49	8.06	5.37	1.40	2.08	2.50	5.58	46.18
1915,	8.32	5.37	1.06	2.96	3.72	3.33	6.64	10.17	2.73	1.91	2.98	4.54	53.73
Means,	4.33	3.73	4.43	4.96	3.75	4.01	4.96	5.10	4.31	4.32	2.58	4.39	50.86

Gouldsboro, Wayne Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	....	....	....	....	....	....	7.11	3.56	0.73	1.71	2.12	4.29	....
1915,	5.59	4.56	0.77	4.41	3.75	3.29	4.67	8.91	2.60	1.71	2.62	3.28	46.16

Grampian, Clearfield Co.—(Elevation 1,400 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1864,	....	....	....	....	....	....	4.16	5.68	4.32	2.52	3.96	5.01	....
1865,	3.24	3.52	6.24	3.42	4.53	3.63	5.11	3.37	6.18	3.12	2.07	3.57	48.00
1866,	2.55	3.30	4.70	3.14	1.58	4.37	5.25	5.68	5.67	4.08	4.21	3.83	48.36
1867,	2.72	3.46	4.50	4.36	7.17	1.31	4.21	4.14	1.49	2.88	2.16	4.54	42.94
1868,	3.32	3.79	4.00	4.56	5.91	2.74	3.35	3.56	6.36	2.82	3.26	3.00	46.67
1869,	5.12	2.34	4.56	3.08	5.18	7.28	5.68	2.21	3.96	1.81	3.27	4.94	49.43
1870,	5.16	4.54	4.00	1.35	5.61	2.83	6.63	3.23	2.78	4.68	1.54	3.29	45.54
1871,	3.56	2.43	2.70	3.84	2.07	3.16	4.12	3.70	1.27	2.88	4.70	1.99	36.42
1872,	1.21	1.56	2.00	2.03	2.84	4.59	6.44	3.94	1.67	4.20	1.42	5.12	37.02
1873,	4.64	2.52	4.75	4.81	2.58	5.29	4.72	6.88	1.78	4.74	2.98	4.38	50.07
1874,	4.29	3.88	3.50	6.11	1.87	2.47	5.33	2.92	2.86	1.35	3.82	4.23	42.63
1875,	3.50	2.03	6.89	2.41	1.81	3.57	4.73	4.63	2.90	2.19	3.00	3.68	41.34
1876,	4.70	....	4.68	2.92	....	....	....	2.26	....	....	2.55	....	....
1882,	....	....	....	....	....	....	....	....	....	1.53	1.45	2.50	....
1883,	4.26	6.85	2.60	4.38	4.27	6.17	6.05	1.66	2.24	2.89	2.55	3.75	47.67
1884,	3.29	4.69	5.10	3.00	2.86	9.85	5.29	4.07	2.14	3.76	1.82	3.65	49.52
1885,	3.82	2.23	1.34	3.63	4.06	2.96	6.14	8.03	1.14	2.92	3.73	2.72	42.72
1886,	4.27	1.90	3.62	3.44	3.87	4.93	5.47	2.92	4.50	0.97	6.03	2.94	44.86
1887,	2.57	7.62	2.49	3.26	3.38	7.02	3.55	3.65	3.50	0.81	2.28	3.12	43.25
1888,	5.47	1.73	3.00	2.27	4.58	2.38	3.66	8.19	4.37	4.50	3.86	2.89	46.90
1889,	3.32	1.96	3.12	4.61	11.60	3.71	7.33	4.00	2.76	3.21	3.86	4.67	54.05
1890,	4.41	5.33	5.29	3.39	6.77	2.74	3.24	6.41	5.37	6.36	1.73	4.15	55.19
1891,	3.62	7.01	3.97	2.34	1.29	8.71	7.03	4.08	2.38	3.17	3.27	5.15	52.02
1892,	3.49	3.17	3.61	2.34	7.13	4.97	2.41	3.74	2.12	0.59	3.21	1.36	38.14
1893,	4.12	6.77	2.49	4.89	5.47	2.25	4.21	3.26	3.21	2.62	1.72	4.10	45.11
1894,	3.15	2.14	2.27	2.98	7.63	2.07	4.06	1.15	7.08	2.97	3.04	3.85	42.29
1895,	5.19	0.96	1.90	3.81	2.38	2.87	2.85	3.08	2.20	1.26	2.57	3.48	32.55
1896,	1.22	3.57	4.02	2.40	2.20	5.76	8.83	3.98	4.45	2.62	3.26	1.82	44.13
1897,	2.15	2.78	4.25	4.14	4.55	3.14	7.02	2.46	3.16	0.68	6.04	4.57	44.94
1898,	3.81	2.06	8.40	2.30	3.30	5.03	3.41	4.12	1.54	5.21	3.55	3.56	46.29
1899,	3.12	3.03	4.42	1.67	5.34	3.00	3.84	3.54	3.00	1.56	2.31	3.96	38.79
1900,	3.21	3.63	3.64	1.36	d2.77	....	....	....	....	3.32	4.71	2.40	....
1901,	2.03	1.98	1.88	5.22	3.51	....	....	4.22	2.95	0.26	....	....	....
1902,	2.42	1.84	2.87	3.71	2.81	....	....	....	....	....	....	....	....
1903,	....	4.64	4.89	3.72	2.51	4.98	5.15	4.94	1.98	4.55	....	....	....
1904,	5.75	3.09	6.08	....	....	....	....	....	....	....	....	....	....
1905,	3.00	0.85	3.30	3.22	2.26	3.27	....	....	....	....	....	....	....
Means,	3.58	3.88	3.92	3.36	4.15	4.24	4.98	4.05	3.27	2.82	3.13	3.62	44.93

Green Lane, Montgomery Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1883,	....	....	....	....	....	....	....	3.20	6.51	5.20	1.69	4.21	......
1884,	5.28	5.84	4.35	2.30	3.06	5.24	7.32	3.72	0.40	3.97	3.12	6.03	50.63
1885,	3.79	4.09	0.80	2.54	2.36	1.18	2.48	4.96	0.90	4.29	3.32	3.25	33.96

Greensboro, Greene Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	2.47	3.28	2.64	2.58	4.63	6.79	4.37	3.95	3.04	2.87	7.50	2.56	46.68
1890,	5.10	5.25	5.19	3.75	9.23	5.38	4.05	6.05	8.03	8.05	2.14	2.93	65.15
1891,	3.19	6.18	3.97	2.11	4.86	6.86	6.10	3.29	2.82	2.95	3.24	3.57	49.14
1892,	2.87	2.20	3.21	2.77	5.28	5.39	4.96	1.86	2.01	0.83	3.28	1.51	36.17
1893,	2.67	5.00	0.86	5.04	4.96	1.58	2.04	3.19	1.18	2.84	2.03	2.37	33.76
1894,	2.33	3.07	2.36	3.31	4.56	2.49	3.81	1.94	3.73	2.16	2.31	3.67	35.74
1895,	4.34	1.08	2.92	8.88	1.55	3.93	5.25	4.27	0.55	0.92	3.12	2.83	34.64
1896,	1.51	3.21	4.10	2.69	3.36	5.26	12.72	1.93	4.20	3.20	3.13	1.40	46.71
1897,	1.86	4.86	3.54	3.98	4.93	4.15	4.42	1.86	0.65	T	5.36	4.86	40.47
1898,	4.95	2.06	6.05	4.06	3.67	4.42	3.96	6.71	1.50	5.79	2.66	2.81	48.63
1899,	3.97	3.60	5.47	1.14	5.16	5.70	6.25	1.88	8.30	1.18	3.72	3.53	49.90
1900,	2.21	3.57	4.82	1.56	2.96	6.07	7.15	2.86	1.44	3.58	6.59	1.72	44.53
1901,	1.83	0.43	2.63	7.09	7.00	5.88	2.59	3.66	4.59	0.27	2.74	5.64	44.34
1902,	2.26	1.55	3.73	3.77	3.11	5.48	7.06	2.02	2.58	3.79	1.45	5.02	41.81
1903,	1.52	5.31	4.32	4.93	3.02	5.94	5.56	4.04	1.36	3.18	1.89	1.12	42.19
1904,	2.08	2.26	4.72	3.46	3.81	3.95	6.06	2.58	1.20	1.36	0.20	2.46	34.14
1905,	2.76	1.54	5.10	3.99	2.54	6.04	5.97	3.76	1.70	4.86	2.94	4.29	45.49
1906,	3.54	1.50	4.24	3.02	2.78	5.33	2.22	3.02	1.80	3.38	1.41	4.40	36.64
1907,	7.60	1.84	6.60	1.56	3.61	4.62	8.82	3.66	3.82	2.82	3.28	2.66	50.89
1908,	2.29	3.08	5.88	3.52	5.88	2.50	4.50	2.44	2.38	0.68	0.88	2.51	36.54
1909,	3.42	4.12	2.30	4.72	2.95	6.44	1.94	2.41	0.83	2.72	0.69	2.02	34.56
1910,	6.42	2.58	0.33	2.28	2.88	5.86	4.18	1.60	4.72	1.16	2.14	b2.17	b36.32
1911,	5.64	2.91	2.13	3.94	0.96	3.90	1.17	7.08	6.36	4.56	2.30	3.68	44.63
1912,	2.18	2.34	5.81	4.02	2.46	4.72	8.56	4.48	6.66	1.56	1.16	2.76	46.71
1913,	7.42	2.19	3.74	2.64	5.98	2.80	6.68	1.48	1.90	4.64	4.86	2.90	47.23
1914,	1.90	3.59	1.56	5.02	1.56	2.56	4.24	4.03	0.88	2.78	1.24	6.30	35.66
1915.	5.23	3.54	1.08	2.24	4.44	1.56	3.88	3.10	2.38	4.64	3.34	4.62	40.05
Means,	3.47	3.04	3.68	3.45	4.00	4.65	5.13	3.30	2.99	2.84	2.80	3.20	42.55

Greensburg, Westmoreland Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1908,	....	....	....	4.39	5.88	1.54	3.06	1.87	0.70	0.57	0.84	2.99	....
1909,	3.10	3.99	3.50	5.58	2.84	4.49	3.06	2.39	2.28	3.14	0.62	2.05	37.04
1910,	6.58	3.13	0.33	3.18	2.84	3.87	2.71	2.56	3.94	1.44	1.80	3.70	36.08
1911,	4.04	2.10	1.95	4.73	2.19	2.72	2.96	4.12	7.91	4.27	2.56	4.28	43.83
1912,	2.26	1.85	6.60	4.53	1.76	6.38	8.40	5.62	6.51	2.04	1.21	2.59	49.75
1913,	6.68	2.19	3.63	2.14	3.82	3.11	6.22	2.38	3.66	5.37	3.30	3.39	45.83
1914,	1.77	3.77	2.94	4.62	3.09	3.98	2.26	4.70	0.62	2.31	1.59	4.93	36.58
1915,	4.16	3.06	1.27	1.68	4.75	3.18	4.20	2.94	2.28	3.09	2.24	4.20	37.05
Means,	4.08	2.87	2.89	3.86	3.40	3.66	4.11	3.32	3.49	2.78	1.77	3.52	39.75

Greenville, Mercer Co.—(Elevation 1,725 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	3.50	1.63	1.92	2.73	2.64	3.44	3.95	3.18	4.07	3.16	5.17	1.61	36.99
1889,	3.52	1.18	....	2.50	2.57	3.51	1.04	1.83	3.68	2.74	2.72	3.03	....
1890,	4.58	5.05	5.12	4.57	....	3.44	2.52	4.28	6.19	6.85	2.92	2.68	....
1891,	1.22	2.50	3.23	1.75	3.31	6.72	....	....	....	....	....	....	....
1894,	2.23	1.62	1.94	2.55	3.03	1.78	3.32	0.54	6.02	0.65	2.47	2.27	28.43
1895,	3.50	1.08	....	2.35	2.75	3.26	....	....	....	....	....	....	....
1897,	....	....	5.63	2.93	4.10	3.55	8.16	4.88	1.91	0.47	5.89	4.73	....
1898,	6.84	3.27	5.53	2.04	3.59	3.60	3.08	5.42	1.76	3.80	....	....	....
1903,	2.75	5.42	5.10	4.11	2.09	7.21	7.32	4.73	1.48	4.10	2.78	2.87	49.96
1904,	5.01	3.26	4.37	3.45	5.04	4.68	5.59	4.11	2.59	1.67	1.07	2.16	42.82
1905,	2.89	2.20	2.98	3.56	4.06	5.63	9.78	4.10	2.81	5.52	1.90	2.37	47.75
1906,	1.56	1.59	3.51	2.36	3.08	2.41	3.72	5.79	3.69	5.20	2.04	2.09	37.04
1907,	6.18	1.62	4.27	2.80	3.81	6.79	6.48	1.68	4.07	3.71	2.94	3.36	47.71
1908,	2.62	4.08	5.20	3.94	4.01	3.80	6.76	2.19	0.91	1.07	1.01	3.51	39.10
1909,	4.00	4.52	3.19	4.95	3.54	5.58	1.18	1.39	1.30	2.11	2.49	2.48	36.73
1910,	5.47	3.77	0.21	3.92	4.49	1.33	3.04	1.45	5.35	4.35	3.61	3.21	40.23
1911,	3.95	2.17	2.41	3.49	2.00	5.98	2.35	8.02	7.41	4.89	2.11	4.49	50.17
1912,	3.70	2.36	3.75	5.00	1.84	3.54	6.04	6.88	3.86	4.70	1.65	3.01	[illegible]
1913,	6.93	2.15	9.08	2.10	3.05	2.80	3.65	2.13	1.33	4.69	3.69	2.15	43.76
1914,	3.71	1.78	2.67	5.59	3.96	3.53	5.78	5.33	0.73	3.28	2.58	4.01	42.95
1915,	3.49	3.03	1.28	0.82	3.30	5.18	5.35	6.22	3.41	2.46	2.46	3.85	40.90
Means,	2.87	2.72	3.76	3.24	3.31	4.18	4.68	3.90	3.29	3.43	2.80	3.00	42.18

Grove City, Mercer Co.—(Elevation 1,256 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1907,	4.51	1.02	6.22	4.17	2.76	3.04	4.53	1.08	4.01	2.46	1.97	3.08	38.85
1908,	1.86	3.25	6.27	5.73	3.83	2.39	9.42	1.95	0.98	1.61	0.97	3.71	41.97
1909,	3.62	4.84	3.19	5.96	3.57	4.45	2.68	1.72	0.91	1.26	1.39	2.36	35.95
1910,	7.71	4.53	0.39	3.80	4.69	2.53	2.83	2.09	6.28	2.83	2.08	2.96	42.72
1911,	4.17	2.34	2.86	4.90	1.93	3.81	1.61	6.27	6.43	6.55	3.20	3.86	47.93
1912,	2.53	1.53	3.02	4.76	2.71	4.56	6.52	7.44	3.85	3.19	1.01	2.52	43.93
1913,	6.10	2.12	5.96	2.69	3.79	2.26	6.91	4.00	1.32	3.93	3.56	1.26	43.90
1914,	3.11	1.89	2.08	7.22	4.07	3.19	2.95	3.50	0.90	3.29	1.80	3.81	37.99
1915,	4.64	2.65	1.12	0.83	3.26	5.50	5.09	4.85	3.09	2.01	2.31	3.97	39.32
Means,	4.25	2.69	3.46	4.45	3.40	3.52	4.73	3.66	3.09	3.01	2.03	3.09	41.38

Hadley, Mercer Co.—(Elevation 1,050 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	3.25	1.90	2.85	5.29	3.93	3.72	2.46	5.71	0.79	3.53	1.28	3.58	38.29
1915,	3.05	3.25	1.11	1.10	2.51	4.63	6.87	5.89	3.15	1.98	2.36	4.04	39.94

Note: This station maintained and operated by Water Supply Commission of Pennsylvania.

Hamburg, Berks Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1890,	....	....	....	....	....	....	....	....	3.94	5.26	0.87	2.21	....
1891,	5.27	3.94	5.48	2.26	2.24	2.23	*9.30	6.30	1.77	2.60	1.48	4.06	47.02
1892,	5.25	0.44	3.81	1.44	4.53	4.82	2.41	3.78	2.39	0.37	4.85	1.33	35.42
1893,	....	*5.65	3.97	4.53	6.82	1.63	3.34	5.74	5.59	3.57	3.54	3.07	....
1894,	2.22	4.47	1.53	3.55	10.31	1.40	3.02	2.24	6.25	6.36	3.06	3.61	48.02
1895,	5.82	0.71	2.05	6.85	3.23	2.66	3.51	2.42	1.62	3.14	1.60	3.78	37.29
1896,	0.80	4.68	5.02	2.05	4.96	4.03	6.00	1.96	4.84	4.25	4.75	0.97	44.31
1897,	2.50	4.61	3.49	3.76	8.15	4.59	6.99	4.16	1.83	1.79	7.04	6.25	55.16
1898,	6.06	1.74	4.01	5.19	7.85	1.47	5.26	7.26	1.14	6.72	4.69	3.02	54.41
1899,	4.41	3.95	6.69	2.27	4.83	5.25	6.30	3.00	6.90	1.40	3.15	2.75	50.90
1900,	3.50	5.95	3.95	2.05	3.20	4.20	5.30	4.30	1.60	2.00	3.00	2.95	42.00
1901,	3.11	1.03	6.09	4.80	6.55	4.55	4.88	13.65	5.10	1.75	2.19	7.19	60.89
1902,	4.09	6.44	4.38	4.59	....	....	....	1.53	6.06	3.98	0.51	6.64	....
1903,	3.73	6.77	4.54	4.02	0.32	4.96	8.21	5.34	1.45	8.42	1.60	3.37	51.73
1904,	3.66	2.33	3.57	3.06	4.85	5.44	5.63	8.64	4.92	3.56	1.73	3.32	50.71
1905,	5.05	1.95	4.41	3.88	1.28	3.48	5.49	9.20	6.80	7.06	2.59	4.02	55.21
1906,	2.36	2.77	5.89	5.04	2.31	7.84	3.66	8.46	4.88	6.42	1.90	5.75	57.28
1907,	3.20	2.22	4.31	1.26	4.53	3.65	5.19	6.61	9.91	3.80	3.02	7.39	54.09
1908,	2.18	4.78	6.17	5.56	5.91	1.31	6.71	3.54	3.53	3.20	0.77	2.17	45.83
1909,	1.88	9.86	3.56	6.96	6.52	5.62	1.53	1.61	3.43	4.60	1.03	3.19	48.79
1910,	3.77	4.02	0.36	8.50	3.79	6.38	2.43	2.41	8.42	1.58	2.88	3.32	47.86
1911,	3.36	0.86	3.53	4.25	6.81	10.11	7.28	12.32	1.86	9.23	5.42	2.58	67.61
1912,	2.94	1.13	7.72	7.31	3.77	4.84	3.70	5.19	6.05	4.06	3.34	4.97	55.01
1913,	3.26	2.07	7.82	9.28	2.89	1.51	2.57	5.64	4.12	6.69	1.43	1.18	48.46
1914,	3.52	1.96	0.88	3.22	2.10	2.19	3.62	3.96	1.06	*1.93	2.75	6.25	*32.44
1915,	9.69	....	1.10	3.96	4.76	....	6.41	10.07	6.96	4.14	....	....	....
Means,	3.82	3.47	4.17	4.39	4.65	4.00	4.95	5.63	4.32	4.15	2.77	3.77	50.08

Note: *Interpolated.

Hamlinton, Wayne Co.—(Elevation 1,100 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1869,	....	....	....	1.88	6.29	4.76	3.25	1.92	5.85	8.06	3.40	3.95	....
1870,	4.07	3.98	4.15	4.22	1.70	4.65	3.60	2.31	1.47	3.60	1.50	1.13	36.38
1871,	2.05	1.80	5.31	1.55	2.65	2.60	7.63	4.73	0.75	2.02	2.29	3.00	36.28
1872,	....	....	....	....	2.30	6.33	3.80	4.70	3.00	....	0.30	3.20	....
1873,	2.00	1.55	2.00	2.75	2.25	....	....	....	....	....	....	....	....
1874,	....	....	....	....	....	3.12	5.15	....	....	....	....	....	....

Hamlinton, Wayne Co.—(Elevation 1,575 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1913,	....	....	....	....	2.47	1.19	2.72	3.97	2.78	4.17	3.22	2.25	....
1914,	1.49	4.95	4.37	6.17	3.05	3.77	9.05	3.31	1.83	1.90	1.53	*4.90	46.32
1915,	4.69	3.68	0.85	2.14	4.09	2.50	5.87	8.65	3.75	1.84	1.85	4.73	44.64

Notes: *Mean of Wilsonville, Paupack, Promised Land and South Sterling. This record furnished by L. B. Stillwell, Consulting Engineers, New York City.

Hanover, York Co.—(Elevation 600 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1904,	†4.39	†1.08	†2.93	1.36	2.21	4.49	3.47	*3.60	*2.42	2.62	1.75	2.30	32.62
1905,	4.30	2.09	3.80	2.70	2.65	5.15	6.60	9.16	2.58	4.13	2.19	3.75	49.10
1906,	2.70	1.89	4.23	4.45	3.46	6.53	2.90	6.85	1.34	6.92	0.86	5.39	46.52
1907,	2.51	2.95	2.86	2.45	2.51	4.77	6.39	2.34	4.87	2.91	3.65	4.65	42.86
1908,	1.88	4.86	3.52	1.85	7.53	1.17	9.57	3.00	2.15	1.53	0.70	2.17	39.93
1909,	2.07	4.57	4.03	3.57	2.34	3.68	0.77	1.37	1.85	2.23	0.70	2.81	29.99
1910,	4.10	4.13	0.36	5.69	2.72	4.49	0.90	3.25	1.19	1.57	1.43	2.18	32.01
1911,	3.95	2.33	2.32	3.22	2.06	3.88	3.52	12.58	2.67	2.59	3.00	3.52	45.54
1912,	0.78	0.37	6.03	2.41	2.63	4.49	4.86	3.28	3.82	1.70	2.05	3.23	35.65
1913,	2.46	1.57	5.17	3.78	3.97	0.67	3.30	1.69	3.94	5.41	2.24	3.35	37.56
1914,	4.72	2.95	1.57	3.63	2.43	4.77	6.04	3.05	1.22	0.89	1.45	4.75	37.47
1915,	6.92	5.39	1.25	2.22	5.55	2.50	3.32	7.68	3.09	2.72	0.98	4.31	46.93
Means,	3.39	2.85	3.17	3.11	3.34	3.88	4.30	4.82	2.60	2.94	1.75	3.53	39.68

Note: †York record. *Interpolated.

Harrisburg, Dauphin Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1840,	....	....	....	....	....	....	....	3.52	1.53	4.23	2.37	3.26	....
1841,	....	....	3.82	4.47	....	3.21	2.06	1.75	1.78	1.27	....	....	....
1843,	....	....	....	2.21	3.98	1.92	3.01	4.75	8.32	5.30	....	0.90	....
1844,	....	....	....	....	....	....	....	3.22	....	....	....	....	....
1845,	0.75	1.95	0.10	....	....	....	1.51	2.64	1.80	5.80	3.29	2.05	....
1854,	3.50	....	0.79	5.31	3.16	5.23	2.51	3.16	0.74	3.57	3.12	9.00	....
1855,	....	....	....	1.88	2.96	8.54	9.19	3.15	3.68	4.82	1.56	....	....
1856,	1.80	....	....	3.76	3.19	3.18	2.04	2.90	0.32	2.03	2.08	2.95	....
1857,	1.25	....	1.33	2.80	8.03	11.20	3.22	2.92	2.09	1.18	1.00	5.67	....
1858,	1.88	1.80	0.80	2.32	10.04	4.97	2.64	4.14	2.04	4.17	5.40	4.23	44.43
1859,	3.09	2.84	6.06	5.53	1.40	4.40	3.25	5.30	8.96	1.66	1.04	2.75	46.28
1860,	0.76	2.89	2.05	3.82	4.79	3.07	1.83	7.83	1.38	4.09	3.44	2.65	38.60
1861,	3.65	1.77	2.47	4.32	3.83	1.62	4.16	2.69	4.70	3.00	2.92	1.00	36.13
1862,	6.19	1.85	3.79	4.67	1.66	9.62	2.06	0.38	1.28	3.21	1.10	1.24	37.05
1863,	5.22	3.67	5.60	4.17	3.38	2.97	13.58	1.06	4.56	5.60	3.05	6.81	59.67
1864,	2.47	0.74	4.56	5.86	5.36	2.68	5.18	4.92	12.39	1.69	2.51	3.26	51.62
1865,	4.15	3.51	5.78	2.24	8.57	2.22	2.69	3.53	4.74	3.09	1.77	3.50	45.79
1866,	2.34	4.11	0.72	3.77	2.98	5.78	3.78	2.34	4.39	3.59	3.27	2.06	39.13
1867,	2.09	4.22	5.21	2.01	5.72	3.64	2.55	12.17	2.47	3.14	0.89	3.05	47.16
1868,	4.08	1.76	2.47	5.02	4.40	3.40	2.36	1.70	5.58	0.60	6.20	2.72	40.29
1869,	4.21	3.49	4.76	1.68	3.66	5.46	3.77	....	....	....	2.62	6.97	....
1870,	10.10	4.11	3.75	4.45	4.07	7.65	2.36	....	....	....	....	....	....
1871,	....	....	....	2.92	3.71	5.94	8.49	8.95	2.43	....	....	....	....
Means,	3.38	2.75	3.18	3.66	4.47	4.83	3.92	3.95	3.76	3.27	2.65	3.56	43.73

Note: Diary of Rev. John Heisley.

Harrisburg, Dauphin Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1889,	2.86	1.48	3.26	3.96	9.51	7.18	8.68	3.56	4.53	3.33	6.59	2.11	57.07
1890,	2.01	3.39	3.80	2.46	6.61	2.97	2.80	5.70	2.89	6.40	1.12	2.42	42.57
1891,	4.73	3.31	4.25	1.70	1.77	3.76	8.40	6.20	1.75	2.87	1.95	3.71	43.40
1892,	5.14	1.02	4.81	2.15	3.95	4.93	6.48	2.39	3.31	0.15	4.15	1.17	39.65
1893,	2.05	4.66	1.97	3.67	5.32	2.46	1.92	3.69	1.74	3.25	2.54	1.91	35.18
1894,	1.77	4.56	1.30	2.27	6.07	3.25	1.89	4.08	5.53	4.60	1.90	3.34	40.56
1895,	3.80	0.54	1.94	3.67	1.98	1.66	1.16	2.36	2.18	1.63	1.72	3.38	26.02
1896,	1.00	5.48	3.85	1.19	2.99	3.82	6.32	1.45	1.81	3.45	3.30	0.40	35.06
1897,	1.60	2.77	2.87	2.53	5.30	1.83	3.68	3.13	1.30	1.35	4.09	3.21	33.66
1898,	3.23	1.60	3.04	1.95	6.13	1.98	6.07	8.44	2.08	5.26	3.15	3.16	45.09
1899,	2.27	3.71	3.69	1.15	4.49	2.93	1.90	4.65	4.25	0.78	2.13	1.83	33.98
1900,	2.07	3.40	3.00	1.43	1.33	2.88	3.14	4.72	1.41	1.25	2.69	1.62	28.94
1901,	1.83	0.53	3.60	2.88	5.98	1.13	1.52	2.99	2.16	1.15	1.29	4.75	29.81
1902,	3.28	3.98	2.98	2.73	0.29	4.76	3.68	2.26	4.01	5.81	1.49	4.57	39.84
1903,	3.67	4.19	3.76	3.24	0.46	5.63	1.76	6.82	1.95	2.62	0.88	1.92	35.90
1904,	3.11	1.54	2.72	2.07	3.45	3.99	4.76	2.95	1.69	2.78	0.54	2.39	31.99
1905,	4.15	1.15	3.17	1.39	1.73	2.79	5.01	5.28	2.80	3.65	1.51	3.39	36.02
1906,	1.76	2.10	3.25	3.35	1.28	5.00	1.74	5.39	2.39	4.07	0.54	3.34	34.21
1907,	2.66	1.81	3.33	2.12	1.45	3.43	1.99	2.59	8.27	1.54	2.63	4.43	36.25
1908,	1.78	5.01	3.27	2.33	3.48	1.06	5.51	2.43	1.50	4.15	0.89	2.07	33.47
1909,	1.83	4.13	2.82	2.67	2.40	4.26	0.86	0.81	2.62	2.37	0.41	2.98	28.16
1910,	3.91	3.54	0.25	4.20	4.11	4.91	1.41	2.21	2.78	1.30	0.83	2.57	32.02
1911,	2.36	1.94	2.93	3.03	2.26	2.23	1.81	9.73	3.68	2.80	2.38	2.75	37.90
1912,	1.88	2.10	4.91	3.95	2.81	2.78	2.08	3.03	4.27	0.90	1.55	3.83	34.09
1913,	2.58	1.72	5.03	3.89	2.73	1.07	2.92	4.35	3.51	6.20	1.68	2.74	38.42
1914,	3.14	3.51	1.58	4.52	2.61	3.13	6.21	4.43	0.68	1.36	1.25	4.63	37.05
1915,	6.04	4.26	1.86	2.13	2.84	3.51	4.03	10.29	3.10	1.92	1.46	3.35	44.78
Means,	2.83	2.87	3.08	2.69	3.46	3.31	3.58	4.23	2.90	2.85	2.02	2.89	36.71

Harrisburg, Dauphin Co.—(Elevation 405 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	....	....	....	....	....	....	....	5.27	0.75	1.54	1.84	4.61	....
1915,	6.69	5.18	1.56	2.33	3.27	4.18	5.21	11.00	3.54	2.47	1.96	4.13	51.52

Note: This station maintained and operated by Water Supply Commission of Pennsylvania.

Hawley, Wayne Co.—(Elevation 899 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1897,	....	....	....	....	....	....	....	....	....	....	4.32	5.06	....
1898,	4.25	1.71	3.74	3.26	4.95	3.50	5.48	4.72	3.17	4.79	4.95	3.62	48.14
1899,	3.52	6.03	4.28	1.67	3.42	5.50	5.25	2.43	3.86	2.30	2.32	2.69	43.27
1900,	2.46	4.23	2.99	....	....	....	....	....	....	....	....	....	....

Hawthorne, Clarion Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1899,	....	5.01	10.30	3.25	6.17	4.88	6.95	2.47	3.76	2.20	2.20	4.25	....
1900,	3.35	6.94	4.76	1.18	3.14	4.37	6.05	5.53	2.52	3.28	4.92	1.87	47.91
1901,	2.68	1.26	4.47	7.10	....	3.53	2.71	5.31	2.21	2.36	3.86	4.40	....
1902,	2.58	11.93	3.41	2.90	3.11	7.52	8.57	1.04	3.46	....	....	....	....
1903,	....	....	....	3.48	1.99	5.95	5.05	6.17	2.68	....	3.00	....	....

Herrs Island Dam, Allegheny Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1898,	....	....	....	1.19	4.45	4.23	1.71	4.67	1.02	3.90	2.17	2.17	....
1899,	2.78	2.94	3.84	2.41	3.06	3.25	2.50	2.39	2.27	0.93	3.41	2.20	31.98
1900,	1.84	3.00	2.81	1.46	1.22	4.34	3.91	0.97	0.89	2.36	3.93	1.54	28.27
1901,	1.87	0.74	3.69	7.73	5.61	4.60	2.82	3.87	2.04	0.33	1.64	4.54	39.48
1902,	1.48	1.53	3.60	3.28	2.25	5.06	3.63	1.77	2.00	3.10	1.03	4.52	33.25
1903,	2.62	3.71	5.13	3.15	1.82	4.88	3.71	4.65	1.10	2.67	2.98	1.57	37.98
1904,	2.62	2.13	5.44	3.37	2.88	6.67	3.78	3.00	2.79	1.93	0.22	2.01	36.84
1905,	2.50	1.45	3.15	2.53	3.08	7.09	3.19	3.46	2.75	3.47	2.66	3.40	38.70
1906,	2.15	1.22	3.60	1.91	2.01	4.60	5.85	3.33	3.24	3.35	1.20	2.61	35.07
1907,	5.27	1.19	5.63	2.06	2.34	3.88	5.04	1.78	3.66	1.94	2.02	3.01	37.82
1908,	1.84	3.45	5.43	3.21	4.86	1.52	5.11	2.63	0.77	1.07	0.52	2.49	32.90
1909,	2.96	4.68	3.48	5.04	2.16	5.59	1.55	2.90	0.91	2.34	0.85	2.33	34.79
1910,	5.56	3.85	0.47	2.61	2.87	2.51	2.16	2.40	5.28	1.62	1.55	2.80	33.68
1911,	3.33	1.94	2.14	5.27	0.25	3.55	2.42	6.45	6.81	4.94	2.09	3.82	43.01
1912,	1.88	1.84	4.86	4.40	1.51	4.80	6.82	2.92	2.97	2.32	0.75	2.87	37.94
1913,	5.75	1.96	4.52	2.61	3.00	0.92	4.97	1.83	2.31	4.24	2.80	2.62	37.53
1914,	2.24	3.41	2.02	4.13	3.30	3.60	1.57	4.91	0.73	2.84	0.99	4.30	34.04
1915,	4.16	2.49	1.36	1.07	3.96	5.01	4.53	2.55	1.68	2.77	2.34	3.71	35.63
Means,	2.99	2.44	3.60	3.19	2.81	4.23	3.63	3.14	2.40	2.56	1.84	2.92	35.75

Hollidaysburg, Blair Co. —(Elevation 947 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	5.69	2.12	2.55	2.88	6.94	2.81	3.73	7.26	3.34	3.85	3.05	1.68	44.90
1889,	2.56	1.91	3.69	4.07	7.43	2.71	6.22	1.37	3.01	2.90	6.00	3.36	45.23
1890,	3.04	4.76	4.18	4.96	5.82	4.30	2.37	3.87	5.18	5.02	1.48	5.71	50.60
1891,	3.74	5.92	5.60	1.60	1.95	4.91	4.98	4.26	2.16	2.76	2.76	3.89	44.53
1892,	3.51	2.37	4.89	2.84	5.32	6.28	3.01	3.58	2.89	0.29	3.76	1.97	40.66
1893,	2.41	6.39	1.86	5.22	5.23	1.61	2.26	4.18	1.92	3.93	2.13	2.32	39.46
1894,	2.07	4.23	1.44	3.08	11.35	3.87	2.03	2.47	5.68	2.36	1.40	4.13	44.11
1895,	5.74	1.03	2.33	2.52	2.39	4.84	2.66	2.03	1.91	1.10	0.97	3.00	30.52
1896,	1.81	3.70	4.96	2.07	2.64	7.38	7.10	1.76	6.33	1.81	1.73	1.31	42.60
1897,	2.40	4.58	3.75	2.77	3.52	1.66	4.07	1.95	2.75	0.57	4.95	3.46	36.43
1898,	4.64	1.21	5.38	1.99	6.30	1.62	2.36	4.31	d0.73	4.79	1.44	2.94	d37.61
Means,	3.42	3.47	3.69	3.05	5.35	3.76	3.71	3.36	3.28	2.67	2.70	3.07	41.61

Holsopple, Somerset Co.—(4 miles above Holsopple at Quemahoning Dam)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1902,	2.24	2.90	4.02	4.62	1.83	6.88	7.36	2.07	2.27	3.72	1.69	4.60	43.70
1903,	2.59	5.01	3.20	2.74	1.82	5.27	6.06	6.23	1.15	2.96	2.19	1.64	40.86
1904,	3.47	2.58	3.86	3.58	2.46	2.42	6.07	2.85	1.99	1.50	1.07	2.14	33.98
1905,	3.87	1.98	3.88	3.41	3.66	4.71	7.49	5.95	2.70	4.59	2.57	3.51	48.32
1906,	2.84	1.07	5.00	2.28	3.52	8.48	1.82	5.97	1.80	2.35	1.24	4.96	41.33
1907,	6.10	2.42	5.60	2.76	3.77	4.71	4.48	4.64	3.85	1.89	3.62	2.94	46.98
1908,	3.64	3.72	6.71	4.36	6.00	2.27	3.07	1.98	0.76	0.24	0.91	3.16	36.82
1909,	2.32	3.57	3.20	6.39	2.17	5.01	1.46	2.21	1.51	3.85	0.56	3.36	35.61
1910,	5.66	2.99	0.47	3.55	3.54	5.09	2.19	1.48	3.48	1.39	1.38	3.44	34.66
1911,	2.88	1.68	2.55	3.30	2.33	5.82	2.80	8.01	8.09	3.03	1.96	3.38	45.83
1912,	1.58	2.20	6.22	4.22	3.58	5.72	7.94	4.70	8.29	2.70	2.20	2.59	51.94
1913,	5.20	1.35	3.33	3.02	4.96	2.97	5.09	3.33	4.50	6.66	3.93	1.98	46.32
1914,	2.49	3.49	3.16	5.93	2.46	8.87	4.63	2.69	0.60	2.56	1.11	3.69	41.68
1915,	4.73	3.38	0.99	0.86	6.17	3.70	5.25	3.50	2.67	2.79	1.94	3.37	39.35
Means,	3.54	2.74	3.74	3.64	3.46	5.10	4.69	3.97	3.12	2.87	1.88	3.20	41.94

Note: This record furnished by the Cambria Steel Company, Johnstown, Pa.

Honesdale, Wayne Co.—(Elevation 1,000 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1882,	4.60	3.23	2.00	1.30	5.24	3.58	6.54	3.33	3.39	1.68	0.93	1.50	37.32
1883,	2.38	2.84	2.27	3.00	3.18	6.51	5.44	0.77	2.66	3.61	1.37	2.50	36.53
1884,	3.75	4.06	4.39	2.96	5.40	1.87	5.36	3.24	1.76	2.76	2.64	3.97	42.16
1885,	4.46	3.01	0.92	2.51	2.79	2.17	4.03	9.58	1.71	3.58	4.31	2.33	41.40
1886,	2.75	3.02	3.64	2.67	6.23	2.39	3.29	2.74	4.29	2.56	6.36	2.31	42.25
1887,	3.01	6.37	3.62	2.62	2.65	4.39	8.93	5.11	2.28	1.10	2.52	4.80	46.40
1888,	4.03	3.02	4.06	2.98	2.98	2.39	3.75	5.59	7.17	3.92	3.97	3.63	47.48
1889,	4.15	2.10	1.88	5.56	5.47	2.13	5.55	2.60	5.90	4.02	5.31	3.53	48.19
1890,	2.29	3.19	4.48	2.87	6.11	4.14	4.73	5.97	4.55	6.77	1.18	4.01	50.29
1891,	4.21	3.45	4.32	2.68	1.92	1.45	4.71	4.21	2.53	3.74	1.82	3.53	38.57
1892,	5.32	2.02	2.88	1.58	7.15	5.25	3.68	5.78	2.15	0.82	4.62	1.72	42.97
1893,	2.39	5.67	3.35	3.89	5.70	2.20	3.77	3.17	2.83	1.99	2.49	4.08	41.53
1894,	2.01	3.63	1.59	3 30	6.07	3.10	0.71	1.53	4.47	5.64	2.18	4.05	38.28
1895,	3.68	0.93	1.51	3.39	2.89	2.07	....	....	2.12	2.65	2.16	3.24	....
1896,	....	4.78	6.06	0.20	....	....	....	1.68	4.88	3.29	....	....	....
1897,	....	....	2.09	3.95	5.92	....	5.84	....	....	....	....	....	....
1914,	....	....	....	....	....	....	....	....	1.07	2.30	1.80	4.23	....
1915,	5.35	4.17	1.53	2.03	3.01	3.34	4.71	7.35	4.16	1.97	2.27	3.94	43.83
Means,	3.63	3.41	2.98	2.79	4.54	3.13	4.74	4.18	3.47	3.22	2.98	3.60	42.67

Huntingdon, Huntingdon Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1895,	....	....	....	....	2.44	2.14	3.10	3.18	2.09	0.31	1.81	2.84	....
1896,	2.18	2.99	3.82	1.85	2.56	7.93	3.60	2.29	7.42	3.24	3.04	0.76	40.13
1897,	1.64	3.65	3.37	3.55	4.94	4.28	3.57	3.90	3.29	1.43	5.47	3.18	42.27
1898,	4.60	1.12	4.79	1.73	4.60	2.07	2.03	4.68	0.67	6.54	2.03	2.41	37.26
1899,	2.10	3.49	4.55	1.07	3.82	2.43	3.68	4.96	3.57	0.49	3.25	2.60	36.02
1900,	1.07	2.68	2.61	3.64	3.11	2.77	1.33	1.78	0.64	2.51	4.33	1.88	26.85
1901,	1.32	0.67	3.30	4.18	5.19	1.59	5.20	5.63	2.49	1.50	0.94	5.61	37.62
1902,	1.76	2.08	4.32	3.24	0.91	5.78	3.77	0.91	2.64	5.30	1.04	5.03	38.78
1903,	3.80	5.38	4.18	3.01	1.78	6.32	4.84	6.43	3.02	3.64	1.83	1.40	45.59
1904,	2.53	1.47	3.82	4.44	2.57	5.40	6.81	3.09	0.79	1.80	0.54	1.92	35.48
Means,	2.36	2.61	3.80	2.96	3.19	4.07	3.09	3.68	2.06	2.58	2.43	3.71	36.84

Huntingdon, Huntingdon Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	6.04	1.83	3.26	2.66	8.41	2.85	3.61	8.53	4.13	3.49	2.95	....	....
1889,	2.84	0.97	3.17	4.42	7.18	5.60	5.38	1.80	4.58	3.67	6.65	3.14	49.35
1890,	3.00	5.18	3.61	4.91	6.36	4.18	4.56	4.40	3.55	5.04	1.38	3.35	49.52
1891,	3.58	4.84	4.48	1.92	1.89	4.15	4.49	3.80	2.07	3.13	2.39	4.18	40.92
1892,	4.22	1.86	5.11	2.29	6.24	6.44	3.48	4.03	2.81	0.12	3.04	1.55	41.19
1893,	2.10	5.27	2.07	4.61	7.79	2.37	2.39	3.49	3.50	3.70	2.46	2.46	42.21
1894,	1.82	3.44	1.07	3.19	9.20	3.56	1.57	1.26	7.56	2.93	1.81	4.21	41.62
1895,	5.16	0.46	1.42	1.97	3.01	4.78	3.15	1.46	1.26	1.09	1.07	2.99	27.82
1896,	2.27	3.18	3.20	2.02	2.57	7.74	4.63	2.46	6.98	2.12	3.40	0.77	41.34
1897,	1.65	4.69	3.95	3.86	4.69	4.27	3.13	3.38	3.31	1.74	5.16	3.19	43.02
1898,	4.68	1.47	5.00	2.04	6.16	2.29	2.97	5.19	0.95	8.46	2.23	2.26	43.69
1899,	2.61	2.96	5.13	1.32	4.48	2.85	3.89	4.53	3.65	1.26	3.02	3.19	39.89
1900,	2.04	3.72	3.61	1.75	4.30	2.82	2.35	2.61	0.89	3.08	4.59	1.75	33.51
1901,	1.97	0.45	4.18	5.15	5.45	2.36	6.69	5.50	3.15	0.76	1.59	6.73	43.98
1902,	2.44	2.98	5.24	3.79	1.30	7.18	4.30	1.72	3.21	5.67	0.96	5.50	44.29
1903,	3.80	5.38	4.13	3.04	1.76	6.32	4.84	6.43	3.02	3.64	1.83	1.40	45.59
1904,	3.07	2.39	4.00	4.05	2.41	6.42	7.60	4.38	0.84	1.91	0.61	1.78	39.46
1905,	3.28	1.08	4.01	1.79	4.26	4.09	4.85	6.94	2.13	4.85	2.43	4.02	43.73
1906,	2.79	1.60	4.24	2.65	3.67	4.28	2.12	5.77	1.65	3.22	0.84	4.37	37.20
1907,	4.51	1.43	5.67	2.18	2.44	4.99	4.36	8.37	8.28	2.19	2.87	3.95	46.24
1908,	3.73	4.28	6.17	3.00	9.49	2.86	5.01	3.09	1.34	1.23	0.73	3.08	44.00
1909,	2.17	4.80	2.04	5.41	2.15	6.23	1.65	3.49	0.95	2.41	0.27	3.73	35.30
1910,	6.17	2.34	0.58	5.67	1.73	5.46	2.24	3.24	6.43	1.51	1.56	2.25	39.18
1911,	3.69	2.43	2.60	4.10	2.18	3.23	1.72	7.14	6.64	3.90	1.96	3.13	42.72
1912,	1.43	2.77	5.21	4.52	3.97	2.49	4.15	2.73	7.59	1.74	1.85	2.43	40.88
1913,	3.80	1.14	3.17	2.82	3.72	3.18	3.81	2.05	2.28	5.70	2.91	2.80	37.38
1914,	*3.65	3.61	2.38	5.16	2.06	4.05	4.00	2.82	0.91	1.82	1.39	4.13	35.98
1915,	5.58	3.74	1.21	2.23	4.22	....	2.86	6.68	2.98	2.82	1.63	3.94	....
Means,	3.36	2.90	3.57	3.30	4.40	4.30	3.78	4.01	3.45	2.97	2.27	3.08	41.39

Note: ***Interpolated.**

Hyndman, Bedford Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1906,	2.33	0.45	4.21	2.58	0.93	4.42	1.41	9.62	1.18	1.97	0.85	3.98	33.93
1907,	5.28	2.30	6.21	2.03	4.18	8.55	3.17	3.28	4.94	1.47	4.16	3.46	48.98
1908,	4.34	4.79	5.24	4.71	6.96	2.25	2.53	1.86	1.99	0.88	0.73	1.90	38.18
1909,	2.58	2.45	1.71	5.36	1.86	6.41	2.26	3.84	1.10	4.25	0.26	2.86	33.93
1910,	4.31	2.02	0.28	4.07	3.09	7.82	1.46	2.59	3.03	1.23	0.93	1.80	32.63
1911,	3.90	2.10	2.43	3.56	0.93	6.41	0.91	9.74	6.10	3.88	1.82	3.90	45.70
1912,	1.48	2.62	5.38	3.65	3.30	5.74	7.08	3.47	6.90	1.30	1.60	2.72	45.24
1913,	1.51	1.11	2.75	2.38	6.45	1.25	2.69	1.32	2.80	7.30	3.38	2.22	35.16
1914,	3.98	4.72	2.29	4.50	1.41	4.29	2.67	1.68	1.37	3.07	1.72	3.72	35.42
1915,	4.57	4.58	1.99	2.04	4.08	6.27	4.13	6.28	4.08	3.14	2.12	4.00	47.28
Means,	3.43	2.71	3.26	3.49	3.31	5.24	2.83	4.37	3.35	2.85	1.76	3.06	39.65

Indiana, Indiana Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	6.75	1.84	3.34	2.98	5.30	4.60	7.04	10.65	2.82	5.48	2.75	2.52	56.07
1889,	2.94	2.42	1.47	4.50	4.71	8.39	....	....	4.60	3.52	5.20	....	....
1890,	....	5.89	4.67	4.66	....	....	2.06	....	8.10	5.31	*d2.14	6.51	....
1891,	4.40	5.99	3.50	....	....	....	....	....	....	....	....	....	....
1892,	....	....	....	....	6.30	4.98	....	1.90	2.75	1.02	....	....	....
1896,	....	....	....	....	....	9.11	....	....	5.75	3.27	4.45	0.90	....
1897,	2.56	1.55	....	....	2.98	....	....	....	2.90	0.57	6.32	....	....
1898,	2.68	1.44	....	4.13	4.81	....	....	....	1.70	....	....	....	....
1903,	....	3.55	4.40	....	....	2.82	5.36	5.15	1.17	3.96	2.71	....	....
1904,	3.18	3.10	6.12	4.98	2.95	4.13	4.89	3.45	1.79	2.10	0.90	2.75	40.82
1905,	3.37	1.60	3.72	4.74	4.60	4.46	6.29	2.98	8.05	5.45	3.69	3.84	47.79
1906,	1.77	0.36	3.59	2.72	3.35	6.04	4.09	6.26	4.08	3.08	1.33	4.65	41.32
1907,	5.18	1.45	7.71	2.69	3.38	4.62	3.22	2.16	7.74	3.15	2.47	2.57	46.34
1908,	1.74	8.45	6.22	4.92	7.75	3.53	4.96	2.43	0.75	0.29	1.31	4.40	41.75
1909,	2.89	4.97	4.90	6.21	2.93	5.93	3.41	1.96	2.22	2.21	1.08	3.14	41.84
1910,	5.55	4.05	0.81	3.47	3.85	3.19	3.28	2.99	3.98	1.89	2.80	4.21	40.07
1911,	5.52	2.51	2.80	4.99	0.55	4.57	1.85	4.03	8.41	6.67	3.25	5.10	50.25
1912,	2.23	2.58	6.97	4.95	3.55	4.23	8.75	5.67	8.02	4.61	1.33	2.42	55.31
1913,	6.42	2.56	4.44	2.52	5.46	2.22	4.52	3.52	8.54	5.87	3.33	2.58	46.98
1914,	4.96	3.54	3.26	5.56	5.09	3.67	3.69	4.28	1.21	2.62	1.43	4.33	43.64
1915,	4.90	3.03	1.57	1.55	4.53	5.85	5.36	3.13	2.69	4.13	2.94	4.46	44.14
Means,	3.94	2.94	4.09	4.10	4.23	4.78	4.58	4.04	3.86	3.43	2.75	3.62	46.36

Note: *Probably correct.

Irwin, Westmoreland Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1896,	....	....	....	....	....	....	....	....	4.12	2.82	2.84	1.76	....
1897,	1.44	4.10	4.21	4.05	2.79	2.87	5.39	2.33	1.45	0.32	4.95	4.23	38.13
1898,	3.96	1.47	4.96	1.49	4.63	4.37	4.41	5.47	1.41	3.93	2.65	3.14	41.89
1899,	3.31	3.34	4.22	2.81	3.13	4.72	4.63	1.69	2.41	0.71	3.78	3.66	38.41
1900,	2.40	3.20	3.63	1.45	1.78	3.52	3.81	1.61	0.58	2.58	4.94	1.46	30.96
1901,	1.27	0.60	3.93	7.77	4.84	4.34	3.36	3.25	1.78	0.77	3.22	3.60	37.73
1902,	2.08	1.50	3.54	4.23	1.83	6.80	5.62	2.16	3.59	3.87	1.29	4.38	40.89
1903,	2.35	....	5.05	3.42	1.16	6.66	3.73	6.36	1.60	3.36	2.64	1.72	....
1904,	2.74	2.24	4.93	4.64	4.76	4.36	6.81	3.67	1.08	2.82	0.19	2.81	41.06
1905,	2.90	1.47	4.36	3.44	3.58	6.06	5.53	5.84	3.15	4.14	2.67	4.53	47.66
1906,	2.39	1.16	3.87	2.01	2.39	7.81	4.54	7.25	2.83	3.10	0.81	4.31	42.47
1907,	6.49	1.65	5.81	2.56	3.31	5.17	4.83	6.19	5.70	2.36	2.12	3.43	49.62
1908,	2.40	3.54	7.58	4.83	3.94	2.89	4.07	1.50	1.15	0.76	0.66	2.63	35.45
1909,	2.12	4.02	3.19	5.71	2.66	4.90	1.68	3.18	2.33	3.14	0.70	1.79	35.72
1910,	5.99	2.95	0.21	3.07	3.04	2.34	1.83	1.62	4.79	1.68	1.79	2.10	31.41
1911,	3.67	1.98	1.73	4.41	2.05	4.04	2.76	5.97	6.49	4.42	2.77	4.01	44.30
1912,	1.61	1.64	5.00	3.92	2.18	4.76	9.08	4.09	5.55	2.83	1.38	2.35	44.39
1913,	5.87	2.23	3.57	2.42	3.84	2.63	4.78	2.64	2.68	....	3.50	2.19	....
1914,	1.89	2.10	2.01	3.88	2.41	3.90	1.58	5.92	2.67	2.47	0.99	4.38	34.20
1915,	4.06	2.40	1.27	1.15	4.80	3.63	5.09	3.41	1.67	3.16	2.29	3.86	36.82
Means,	3.10	2.31	3.85	3.51	3.11	4.51	4.40	3.92	2.85	2.59	2.26	3.12	39.53

Johnstown, Cambria Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1868,	....	4.60	3.80	7.55	12.18	3.40	5.76	2.50	10.92	1.97	....	2.90	....
1869,	1.67	1.93	0.80	5.07	8.34	11.01	5.59	1.66	3.04	2.28	4.07	4.47	49.93
1870,	4.80	5.01	4.37	2.38	4.50	4.02	4.47	7.93	2.82	4.21	1.22	1.28	47.01
1871,	....	....	2.70	4.02	2.99	4.05	3.45	5.12	3.70	3.55	3.00	....	....
1885,	0.90	3.77	1.83	2.96	3.65	3.25	3.06	4.06	1.62	5.80	2.72	3.94	37.56
1886,	6.48	2.08	3.75	2.96	4.48	7.25	7.10	5.77	5.47	1.70	5.94	2.89	55.57
1887,	2.90	10.72	1.28	4.03	0.90	7.72	4.81	4.50	2.42	0.48	3.20	2.47	44.41
1888,	8.75	1.86	3.12	3.24	4.74	3.73	4.38	8.34	4.76	0.30	2.00	1.93	47.10
1889,	3.11	3.05	2.22	7.60	6.15	....	....	3.95	4.50	2.55	5.33	4.62	....
1890,	4.95	5.06	5.74	4.66	6.90	2.72	1.87	6.38	5.85	5.21	2.38	4.89	56.60
1891,	3.47	7.99	4.99	2.78	3.44	9.22	6.81	3.87	1.83	2.80	2.51	3.84	53.50
1892,	4.14	2.97	3.92	3.55	6.67	5.18	3.70	2.29	1.60	0.88	4.74	2.51	42.15
1893,	2.93	7.76	1.45	5.44	6.26	2.02	3.81	2.22	2.28	3.22	2.09	3.59	42.05
1894,	3.00	3.38	1.95	3.09	7.03	2.12	1.87	1.20	5.44	2.44	2.55	4.24	38.81
1895,	4.91	0.98	2.49	4.38	2.83	4.59	3.02	3.39	3.75	1.24	2.75	3.22	37.55
1896,	0.66	2.77	3.80	2.57	1.80	6.03	8.45	4.00	6.03	3.15	3.70	2.04	45.00
1897,	2.92	4.05	5.36	3.98	3.71	3.67	5.97	2.23	3.55	0.72	6.14	3.74	46.04
1898,	7.57	2.78	6.49	2.04	7.28	4.10	3.89	8.87	2.04	5.89	3.15	3.35	56.95
1899,	4.16	3.49	5.37	2.27	6.20	3.62	3.20	5.34	3.45	0.97	4.26	4.25	46.58
1900,	3.38	4.63	4.04	1.41	2.92	6.08	4.88	4.41	1.50	2.61	5.84	2.57	44.27
1901,	3.52	1.92	4 79	6.06	6.45	6.14	2.00	3.94	3.87	0.73	2.90	5.16	47.48
1902,	3.47	2.48	5.09	4.86	2.18	6.73	5.19	2.49	2.31	4.58	1.69	6.11	47.18
1903,	4.53	5.80	3.72	4.08	2.36	7.69	4.97	7.21	1.83	3.89	3.02	2.42	51.52
1904,	4.10	3.75	5.57	4.45	2.98	3.49	7.45	3.93	2.29	2.84	0.96	3.01	44.82
1905,	4.21	2.23	5.06	3.63	4.08	6.78	8.58	5.73	3.90	4.82	3.65	4.42	57.39
1906,	3.57	1.30	5.29	2.87	2.60	6.19	4.16	8.19	1.71	2.50	1.56	5.21	45.15
1907,	7.29	2.46	7.25	3.59	2.64	5.21	5.39	4.66	5.44	2.65	3.88	4.11	54.57
1908,	4.26	6.56	10.00	5.00	5.75	4.17	3.55	3.24	0.51	0.12	0.96	4.61	48.73
1909,	3.04	6.81	4.06	6.70	1.97	4.22	3.10	3.50	2.96	3.56	1.06	3.70	43.18
1910,	7.81	3.13	1.27	4.28	3.52	3.76	1.23	2.31	4.79	1.53	1.96	3.31	38.90
1911,	4.70	2.92	4.44	4.85	4.22	4.91	1.43	7.02	6.35	4.75	3.12	4.13	52.84
1912,	2.85	3.41	7.40	5.00	5.00	6.69	8.82	5.28	6.12	3.12	1.68	3.33	58.70
1913,	8.19	2.21	3.97	2.44	4.89	2.66	3.80	1.91	4.04	8.53	3.86	2.79	49.29
1914,	3.04	3.99	4.04	5.55	3.29	6.94	2.79	2.67	0.70	2.36	1.37	5.10	41.84
1915,	6.98	3.53	1.61	0.93	6.25	3.93	5.53	4.07	1.93	3.65	2.32	5.34	46.07
Means,	4.31	3.82	4.09	4.01	4.60	5.10	4.31	4.39	3.58	2.90	2.96	3.69	47.96

Johnstown, Cambria Co.—(4 miles from Johnstown, in Middle Taylor Twp., Cambria County, at Hinckston Run Dam)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1902,	2.24	2.90	4.02	4.62	1.83	6.38	7.36	2.07	2.27	3.72	1.69	4.60	43.70
1903,	3.52	5.25	3.78	3.74	2.47	5.69	4.82	5.67	1.92	4.21	2.50	2.19	45.76
1904,	3.89	3.09	5.52	5.92	2.76	4.57	7.08	8.24	2.94	1.96	0.72	1.95	48.64
1905,	2.38	1.71	4.33	3.29	4.89	7.48	8.31	5.08	3.33	5.02	3.14	4.58	53.54
1906,	4.17	1.17	4.94	2.82	2.64	6.30	3.90	5.91	1.69	2.90	1.42	5.68	43.57
1907,	7.60	2.33	8.54	3.38	2.73	5.24	4.32	4.15	5.30	5.28	3.77	2.44	55.08
1908,	2.98	5.03	8.92	4.61	5.60	3.56	3.40	2.48	0.88	0.11	0.69	4.03	42.29
1909,	3.58	5.38	3.27	5.70	2.24	3.81	3.01	2.79	1.67	3.82	1.22	3.22	39.71
1910,	6.34	2.95	0.54	2.41	3.63	3.20	1.67	2.69	3.91	1.59	1.87	2.91	33.71
1911,	3.76	2.56	3.69	4.66	2.90	3.88	1.87	6.01	6.83	4.08	2.95	4.36	47.05
1912,	2.41	3.40	7.03	5.25	4.72	5.59	7.00	5.44	7.44	2.92	1.76	3.35	56.31
1913,	7.59	2.38	3.09	0.80	3.79	2.25	3.86	2.23	1.93	7.85	2.94	2.27	40.98
1914,	2.19	3.57	3.08	4.90	3.73	3.82	2.72	1.89	0.36	2.50	1.42	4.91	35.09
1915,	5.22	3.57	1.34	0.57	6.44	3.92	4.48	3.20	1.75	3.59	2.46	6.03	42.57
Means,	4.13	3.24	4.43	3.76	3.60	4.69	4.56	3.78	2.98	3.54	2.04	3.75	44.50

Note: This record furnished by the Cambria Steel Company, Johnstown, Pa.

Johnstown, Cambria Co.—(Mill Creek reservoir, about 3 miles from Johnstown)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1902,	3.88	2.74	4.58	4.33	1.75	7.28	7.60	3.17	2.45	5.03	2.21	6.48	51.53
1903,	5.27	5.96	4.25	4.72	2.54	6.62	4.48	7.35	2.46	8.93	3.30	2.35	53.18
1904,	3.90	4.34	6.00	5.40	3.06	3.52	6.78	4.82	3.00	2.06	1.15	3.51	47.54
1905,	4.24	2.17	5.43	3.93	4.58	7.40	8.94	4.95	3.48	5.31	4.04	4.87	59.84
1906,	3.63	1.40	5.21	2.98	2.14	8.19	3.36	5.52	0.98	3.02	1.79	4.98	43.20
1907,	7.88	2.29	7.80	3.12	2.80	6.61	5.70	5.16	5.86	2.34	4.36	3.82	68.35
1908,	3.29	5.37	9.91	5.26	7.71	3.13	5.94	2.78	0.54	0.09	0.78	4.50	49.30
1909,	3.28	5.72	3.79	6.71	1.51	5.21	3.44	4.22	2.95	3.52	1.28	4.40	46.03
1910,	5.36	4.42	1.27	3.77	3.57	4.45	1.91	3.50	5.72	1.66	2.95	3.38	41.96
1911,	4.63	2.72	3.98	5.29	2.91	5.59	1.88	7.37	6.67	4.48	3.51	2.96	51.99
1912,	2.31	....	6.94	4.64	4.13	....	....	....	....	....	....	....	....
Means,	4.33	3.70	5.38	4.56	3.34	5.80	5.00	4.90	3.41	3.19	2.54	4.12	50.27

Note. This record furnished by the Cambria Steel Company, Johnstown, Pa

Kane, McKean Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1891,	....	....	....	....	....	....	....	....	....	....	....	3.66	....
1892,	....	2.59	3.87	1.71	9.39	8.75	3.98	5.94	2.86	2.32	2.37	0.61	....
1893,	2.40	5.18	2.26	....	....	....	....	....	....	....	....	....	....
1894,	4.71	2.30	2.24	3.39	8.74	2.34	2.13	1.45	6.97	....	....	....	....

Karthaus, Clearfield Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	1.00	2.99	2.35	0.80	1.50	3.43	4.94	1.65	2.89	1.73	....	1.10	....
1897,	1.25	1.60	1.43	1.70	2.65	0.32	5.18	0.84	0.72	0.06	2.51	2.75	21.51
1898,	2.00	1.18	6.14	1.62	1.92	0.77	0.22	....	0.21	1.80	1.86	1.91	....
1899,	2.35	2.19	3.68	1.47	3.01	....	1.58	....	....	....	....	2.40	....
1900,	1.94	3.52	....	....	....	....	....	0.72	0.28	....	2.30	....	....
1901,*	0.88	0.50	....	....	....	....	1.23	....	....	....	1.06	3.30	....

Note: *A doubtful record.

Keating, Clinton Co.—(Elevation 1,870 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	2.25	3.04	2.64	1.40	2.82	5.10	6.81	3.29	6.21	3.47	2.18	1.06	40.27
1897,	1.81	2.15	3.22	3.28	4.34	3.77	4.57	2.99	3.93	0.74	4.78	2.28	37.86
1898,	3.26	1.32	5.24	3.29	3.30	4.20	3.95	4.25	0.96	6.71	2.21	2.98	41.70
1899,	2.35	2.60	....	1.25	3.69	2.85	3.27	1.49	4.53	0.50	3.72	3.19	....
1900,	2.01	3.53	3.66	1.28	4.08	2.72	3.25	3.28	2.06	4.75	5.08	1.80	37.45
1901,	1.99	0.72	3.45	5.41	4.74	2.17	3.90	6.08	4.06	0.72	2.49	....	....
1902,	....	....	....	....	1.86	5.48	8.29	2.30	....	....	....	....	....
1903,	....	2.79	4.67	3.03	1.70	6.50	6.00	5.57	2.40	2.56	....	1.29	....
1904,	2.71	2.11	4.80	4.40	2.88	3.39	3.42	2.66	4.23	1.62	0.36	2.11	34.19
1905,	3.37	1.07	....	....	....	....	5.50	4.91	1.90	4.04	2.49	4.19	....
1906,	2.32	....	....	....	....	....	....	4.41	3.79	....	....	....	....
Means,	2.45	2.28	3.95	2.92	3.21	4.02	4.90	3.75	3.31	2.79	2.91	2.36	38.83

Kennett Square, Chester Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1854,	3.00	8.66	1.43	6.97	4.30	3.39	3.50	1.54	3.97	1.87	3.57	3.70	45.90
1855,	2.82	3.39	1.81	2.06	3.72	8.11	3.26	4.13	7.08	4.68	2.24	6.28	49.56
1856,	3.91	1.28	2.03	3.71	3.94	1.18	1.71	5.10	3.83	0.91	2.37	4.39	34.35
1857,	3.87	0.94	2.18	5.28	6.56	5.75	2.51	7.17	1.28	4.14	1.42	5.62	46.72
1858,	2.20	2.72	1.07	3.68	8.64	5.36	2.27	5.78	1.23	1.68	5.11	4.67	44.36
1859,	5.09	2.94	5.64	5.23	1.58	4.43	3.30	3.93	8.62	2.64	4.09	3.27	50.66
1860,	....	....	1.39	4.43	5.96	2.75	1.17	8.96	4.30	6.33	7.14	4.47	....
1861,	4.65	2.41	3.00	3.93	5.91	3.00	2.93	3.19	2.88	3.19	4.80	1.87	41.76
1862,	4.32	4.32	4.01	3.87	1.21	7.65	3.28	1.89	3.39	3.16	4.40	1.23	42.73
1863,	4.00	4.86	6.35	5.75	4.51	1.70	8.95	1.58	1.78	3.61	2.80	5.25	51.14
1864,	2.06	0.45	5.00	5.26	7.30	3.37	3.67	2.66	5.15	2.25	3.89	4.06	45.11
1865,	3.42	4.44	5.12	2.58	6.99	7.14	3.49	1.82	3.63	3.84	2.35	4.78	48.60
1866,	2.09	6.14	1.55	2.39	4.32	3.94	1.44	3.19	7.45	2.80	2.26	2.91	40.47
1867,	1.32	3.50	5.00	2.36	8.42	8.65	3.65	9.48	1.59	2.70	1.67	2.81	51.15
1868,	2.86	2.11	3.20	4.20	4.82	4.68	5.70	4.67	9.40	1.56	4.56	2.42	50.18
1869,	3.10	4.35	4.35	2.41	3.97	3.86	1.51	0.82	5.19	5.78	4.95	4.30	44.59
1870,	4.00	3.55	2.91	6.27	3.90	5.60	3.35	8.15	2.12	4.78	1.12	2.00	48.05
1871,	3.25	3.22	5.42	1.84	2.50	5.00	6.92	5.00	1.99	3.80	4.19	1.85	44.98
1872,	1.41	1.06	3.46	2.13	2.32	8.03	3.60	7.21	4.46	3.17	3.77	3.55	44.17
1873,	5.18	4.06	2.36	5.21	5.18	0.75	4.50	8.56	5.73	6.40	3.80	1.21	52.94
1889,	....	....	....	....	3.18	....	....	....	10.01	5.04	8.92	0.49	....
1890,	2.37	4.74	4.76	2.73	6.89	2.59	5.17	7.40	5.02	5.49	0.83	3.37	51.36
1891,	6.08	5.84	8.04	2.32	1.93	2.98	10.21	8.74	5.00	3.16	2.29	4.09	60.68
1892,	5.82	1.24	5.90	3.31	7.35	2.97	5.08	3.13	3.17	0.43	5.24	2.59	46.13
1893,	2.69	6.29	3.01	4.56	3.61	3.46	2.52	3.74	4.24	2.37	4.34	3.29	44.11
1894,	1.78	5.08	1.45	3.80	11.54	2.45	4.04	2.78	7.71	5.48	2.88	4.34	53.33
1895,	5.30	1.68	3.48	5.74	3.30	4.40	2.90	2.93	1.55	3.21	1.80	3.12	39.41
1896,	1.52	6.45	5.63	2.05	2.02	5.10	4.44	0.91	6.23	2.51	4.33	0.56	41.75
1897,	2.78	5.46	3.03	3.19	7.96	2.78	10.16	2.77	1.63	2.19	5.47	4.59	52.01
1898,	4.31	3.43	3.24	3.72	4.60	3.07	3.86	6.91	3.95	5.23	6.54	4.24	53.10
1899,	4.82	8.04	6.65	2.23	2.74	2.94	2.98	4.47	4.55	2.03	2.12	2.35	45.93
1900,	4.27	6.79	3.89	2.53	4.37	4.77	4.04	4.59	5.16	2.16	1.71	2.42	46.70
1901,	3.13	1.01	4.65	5.69	3.62	1.63	4.91	9.23	4.25	1.28	3.15	8.66	51.21
1902,	3.77	6.18	4.28	4.91	1.42	5.91	2.11	2.12	6.89	8.12	2.35	6.67	54.73
1903,	4.07	5.21	3.89	3.99	3.21	8.13	4.84	5.08	2.83	6.14	1.17	4.38	52.94
1904,	3.66	2.21	4.17	2.65	3.68	3.37	3.28	6.92	5.32	3.98	3.17	2.04	44.45
1905,	3.55	2.58	4.15	3.94	3.61	3.27	4.38	*7.52	*4.07	*4.67	*2.98	*3.28	*47.00
1906,	*3.67	*3.09	*5.61	4.55	4.57	6.40	8.98	7.66	1.07	4.04	2.40	4.09	*56.13
1907,	3.78	1.75	1.42	2.39	6.17	7.41	2.71	4.05	7.16	*3.88	5.85	7.15	*53.72
1908,	3.29	4.05	2.47	2.16	3.19	3.44	3.51	4.24	2.23	1.98	0.52	3.16	34.24
1909,	3.42	4.74	3.88	2.67	3.83	3.40	0.91	*1.38	3.03	1.09	1.71	6.59	*36.65
1910,	3.55	1.57	0.46	4.88	3.18	6.40	4.44	7.97	1.54	3.52	3.18	1.36	42.05
1911,	3.30	0.95	3.26	3.43	1.92	5.16	5.82	15.14	2.76	4.37	5.34	1.64	53.09

Kennett Square, Chester Co.—Continued

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1912,	2.24	4.05	8.98	2.60	3.72	2.96	3.33	4.75	5.42	3.53	3.63	5.90	51.11
1913,	4.16	1.16	4.89	9.15	4.73	1.55	2.18	3.40	2.33	4.45	2.20	*3.01	*43.21
1914,	2.85	3.31	2.27	3.68	1.48	2.24	7.69	1.94	0.63	1.90	2.45	7.39	37.83
1915,	6.92	6.18	1.32	....	4.50	4.72	3.63	8.51	1.22	2.07	1.48	4.28	....
Means,	3.55	3.72	3.74	3.83	4.41	4.30	4.10	5.07	4.13	3.48	3.36	3.74	47.43

*Interpolated.

Ketner, Elk Co.—(Elevation 1,780 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1913,	....	....	....	....	....	....	....	....	....	....	....	2.18	....
1914,	2.94	1.73	2.19	4.63	7.14	2.51	1.56	4.29	2.22	2.59	2.10	3.80	37.70
1915,	4.74	3.01	1.26	0.98	4.01	5.64	6.83	4.27	3.01	2.24	2.37	3.81	42.17

Note: This station maintained and operated in co-operation with the Buffalo, Rochester & Pittsburgh Railway Company, by Water Supply Commission of Pennsylvania.

Kilmer, Juniata Co.—(Elevation 475 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	....	1.27	3.57	4.06	8.28	6.63	6.95	3.47	5.52	3.43	6.68	2.34	....
1890,	2.02	4.49	3.88	3.59	5.60	2.84	2.78	7.24	4.56	6.09	1.23	3.06	47.36
1891,	4.90	4.31	4.72	2.53	2.40	4.85	7.40	7.28	2.48	3.70	2.86	4.63	52.05
1892,	4.81	1.96	4.35	1.75	6.63	5.94	2.37	4.73	3.45	0.24	4.26	1.39	41.88
1893,	2.02	4.62	1.67	5.34	6.33	2.52	2.72	5.19	2.90	4.41	3.42	1.67	42.80
1894,	1.60	4.57	1.03	4.86	10.00	3.65	1.96	2.00	5.47	6.30	2.34	3.98	47.74
Means,	3.07	3.54	3.20	3.69	6.54	4.40	4.03	4.98	4.06	4.03	3.46	2.84	47.34

Kinsman, Ohio—(Elevation 925 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	3.04	2.35	3.19	5.11	4.25	3.38	6.14	5.53	1.18	3.17	1.84	4.00	43.18
1915,	3.09	2.95	0.98	1.28	2.91	3.78	4.79	4.55	3.74	2.68	2.47	3.51	36.73

Note: This station maintained and operated by Water Supply Commission of Pennsylvania.

Laflin, Luzerne Co.—(Mill Creek Intake)—(Elevation 906 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1908,	1.23	3.51	3.37	2.33	5.12	2.85	2.36	3.22	2.05	1.19	0.00	1.50	28.73
1911,	3.03	1.56	2.05	3.02	2.07	5.36	3.94	7.31	2.13	3.80	2.34	1.78	38.39
1915,	4.79	3.34	0.77	1.99	3.39	2.71	4.13	7.29	2.41	1.13	1.42	4.03	37.40

Note: This record furnished by The Spring Brook Water Supply Company, Wilkes-Barre, Pa.

Lancaster, Lancaster Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	4.79	2.52	4.50	2.02	3.39	2.56	4.12	....	6.02	3.14	2.97	3.50	....
1889,	2.83	2.16	3.89	6.54	4.46	....	....	....	6.38	3.88	9.02	....	....
1890,	2.03	3.11	4.84	2.93	7.04	2.20	....	....	1.24	7.34	1.04	1.08	....
1891,	3.09	3.01	6.30	1.69	2.48	....	....	....	0.28	3.05	1.09	....	....
1892,	4.39	1.12	6.61	1.86	4.25	5.61	1.85	....	3.74	0.30	3.69	....	....
1893,	2.38	4.08	2.24	5.07	6.26	4.25	....	3.77	2.78	3.30	3.76	1.70	....
1894,	1.57	3.50	1.49	4.30	6.47	2.54	2.21	1.36	7.32	5.36	1.91	3.33	41.36
1895,	4.17	1.71	3.02	5.07	3.01	2.18	3.28	....	1.61	2.60	1.36	1.02	....
1896,	....	3.60	4.95	1.24	2.26	....	....	....	....	....	....	....	....
1900,	2.36	5.66	2.71	1.20	5.18	2.41	6.05	2.98	2.11	1.66	2.04	1.87	36.23
1901,	2.43	0.58	4.67	4.36	4.39	1.08	4.94	6.91	3.86	0.80	2.30	5.11	41.43
1902,	3.30	4.06	3.81	3.45	0.74	7.09	5.02	2.22	6.98	6.73	2.93	7.46	53.82
1903,	4.74	4.87	4.55	8.48	0.87	5.92	4.14	7.82	2.64	4.40	1.29	1.96	46.68
1904,	3.04	1.61	1.79	2.46	1.94	2.86	3.56	3.05	3.25	3.95	1.68	3.22	32.41
1905,	4.28	1.14	4.09	3.10	2.67	2.60	5.26	1.86	2.13	4.43	2.60	3.21	37.37
1906,	2.84	1.92	4.12	3.73	2.19	7.98	4.04	4.53	1.41	5.65	0.94	5.12	44.47
1907,	3.35	1.69	4.11	2.10	2.30	5.96	3.06	3.96	5.66	2.73	5.19	4.83	44.94
1908,	2.69	4.61	3.76	2.09	4.45	2.78	9.17	3.15	2.25	2.48	0.72	2.25	40.40
1909,	2.38	4.36	2.99	3.87	2.91	4.43	1.18	1.13	3.16	1.94	1.51	3.97	33.83
1910,	4.25	4.38	0.50	5.44	2.58	5.31	2.14	6.36	1.55	2.43	1.63	1.71	38.28
1911,	3.14	2.40	2.40	3.55	2.24	3.83	2.78	8.15	5.14	3.44	3.22	3.38	43.17
1912,	1.57	1.58	5.66	3.24	4.19	3.20	3.25	3.62	4.79	1.87	2.04	5.34	40.35
1913,	2.86	1.39	5.96	4.76	3.72	2.35	1.88	3.35	8.43	4.67	1.89	3.19	44.45
1914,	3.74	2.46	1.44	2.90	1.88	4.10	6.57	3.26	0.78	1.24	1.72	5.35	35.44
1915,	4.56	4.13	1.00	3.19	3.70	6.60	3.80	9.62	2.78	2.63	1.78	3.56	47.35
Means,	3.20	2.87	3.77	3.85	3.42	3.97	3.92	4.28	3.60	3.17	2.37	3.44	41.36

Lansdale, Montgomery Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1884,	....	....	....	....	3.11	4.39	4.89	2.53	0.47	3.09	3.70	5.27	....
1885,	3.62	4.31	0.85	2.55	2.63	1.35	1.11	5.81	1.05	5.92	5.25	2.75	37.20
1886,	3.73	5.86	8.54	2.97	5.83	6.53	6.50	1.67	1.19	3.09	3.57	2.74	47.22
1889,	2.95	1.63	2.98	4.90	4.35	5.45	15.02	4.66	8.32	5.02	8.11	1.71	65.10
1890,	2.29	4.28	5.33	2.12	5.18	2.19	4.30	4.57	2.67	6.52	1.17	2.37	42.99
1891,	6.03	4.43	4.67	2.12	2.66	2.90	6.36	6.62	2.57	3.09	1.73	3.41	46.59
1892,	5.11	0.75	4.89	2.26	5.75	3.68	6.45	3.58	2.23	0.55	7.15	1.57	48.97
1893,	2.63	5.71	1.50	4.59	3.59	3.21	1.91	5.82	3.52	3.71	4.67	3.06	43.41
1894,	1.59	4.09	1.74	2.61	14.27	2.47	3.19	3.10	8.84	5.55	3.17	3.92	54.54
1895,	5.09	1.34	3.24	4.88	2.28	5.25	4.34	2.95	0.71	3.27	2.68	1.60	37.63
1896,	1.11	6.81	4.65	1.42	2.73	5.57	5.40	0.78	3.97	3.55	3.88	0.75	40.57
1897,	1.85	2.94	1.40	3.26	8.62	4.22	7.17	3.20	1.12	2.48	5.62	4.69	46.67
1898,	3.86	3.03	2.94	3.89	5.82	0.74	2.86	10.01	1.31	4.84	5.28	3.62	48.80
1899,	3.44	5.68	5.93	1.28	1.15	0.95	3.18	7.75	6.96	1.29	1.25	*2.02	*41.08
1900,*	*3.34	*4.95	*3.11	*2.01	*4.81	*3.04	*5.09	*4.06	*3.17	*2.34	*2.47	*2.48	*40.86
1901,	2.24	0.38	4.20	5.84	5.06	1.87	6.68	5.74	2.45	1.42	2.60	6.66	44.63
1902,	3.19	6.92	3.74	3.53	1.52	3.59	2.68	3.15	4.08	5.39	1.63	6.45	45.87
1903,	2.37	4.80	3.08	3.01	0.62	5.57	4.02	3.86	1.63	7.53	1.42	4.04	41.95
1904,	3.33	2.07	3.55	2.73	3.17	3.14	1.92	4.96	4.54	4.76	2.35	1.93	38.45
1905,	4.67	2.01	3.08	3.89	0.96	2.19	2.81	9.15	3.81	3.62	2.40	2.65	41.24
1906,	2.69	2.33	3.72	3.57	2.65	6.22	6.06	3.91	2.69	6.24	1.32	4.29	45.68
1907,	3.32	2.90	2.09	2.92	3.93	5.37	1.87	4.94	9.03	3.02	4.71	4.07	47.17
1908,	3.61	5.14	3.12	2.30	5.97	1.72	5.61	5.86	2.33	3.44	0.70	2.13	41.93
1909,	2.94	4.70	3.38	6.08	3.40	3.39	2.39	2.03	2.68	0.85	2.48	4.26	37.58
1910,	5.61	3.23	0.52	6.61	2.19	4.24	0.59	5.99	1.82	2.71	3.50	2.28	39.29
1911,	3.14	2.36	2.80	3.87	2.39	4.27	2.65	11.23	2.95	4.77	4.14	3.46	48.03
1912,	3.18	2.18	8.94	3.93	2.78	0.89	3.29	6.54	3.54	5.09	3.89	4.17	48.37
1913,	3.55	2.48	5.25	7.11	4.14	1.74	3.14	4.59	5.55	8.21	2.07	1.11	45.94
Means,	3.35	3.60	3.49	3.51	3.95	3.43	4.34	4.95	3.42	3.98	3.32	3.20	44.54

Note: *Interpolated.

Lansford, Carbon Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1906,	....	....	....	....	2.64	9.13	2.43	2.61	3.30	7.05	0.87	4.27	....
1907,	2.33	2.55	2.99	1.56	2.24	4.44	2.18	2.67	7.45	3.17	3.75	6.86	42.19
1908,	4.05	5.82	4.29	*0.70	6.80	*1.94	4.88	4.02	3.69	3.31	0.30	2.20	*41.91
1909,	3.21	6.18	2.90	5.83	2.70	2.27	2.13	0.33	3.62	3.47	0.79	4.03	37.06
1910,	6.61	3.72	0.31	6.92	5.58	4.17	1.77	4.22	3.63	1.79	2.57	3.88	45.17
1911,	3.02	2.46	3.15	5.86	2.68	5.27	5.69	9.01	3.49	5.17	3.89	2.78	50.47
1912,	1.93	2.55	6.02	4.80	2.58	2.23	4.31	5.06	6.55	3.48	2.39	4.31	46.21
1913,	3.34	0.94	7.81	7.29	2.61	1.50	3.74	3.22	5.55	4.81	2.13	3.14	46.08
1914,	3.11	2.49	2.94	3.91	2.62	2.92	4.58	4.04	1.06	1.93	2.37	5.27	37.24
1915,	6.48	5.18	0.99	1.81	3.58	3.90	6.04	14.44	2.29	1.84	2.22	3.73	52.50
Means,	3.79	3.43	3.48	4.00	3.40	3.58	3.77	5.06	4.06	4.60	2.13	4.11	45.41

Notes: *Total incomplete, gage leaking. This record furnished U. S. Weather Bureau by the Lehigh Coal & Navigation Co., Lansford.

Lawrenceville, Tioga Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1897,	0.90	1.16	2.56	2.90	4.35	2.56	4.27	3.27	2.44	1.45	3.47	2.02	31.34
1898,	2.10	1.26	2.59	2.99	3.62	3.23	4.38	4.79	1.98	4.88	2.04	.....	.....
1899,	1.85	2.22	2.28	2.10	2.81	3.78	3.15	6.06	3.03	.....	3.46	2.60	.....
1900,	3.48	5.10	.....	1.11	2.47	2.02	3.50	2.06	0.96	4.85	6.36	1.60	.....
1901,	1.60	0.90	3.45	5.64	3.90	1.61	2.99	5.08	2.05	1.54	2.78	6.22	37.76
1902,	1.75	1.95	2.30	2.70	2.16	5.54	7.37	2.14	4.30	2.22	1.19	3.21	36.83
1903,	2.62	2.33	4.67	2.67	1.65	8.60	5.60	5.31	1.99	5.10	2.85	1.92	45.31
1904,	3.08	3.06	2.60	2.90	4.32	3.04	3.78	2.68	2.30	2.24	0.40	1.60	32.00
1905,	1.95	0.70	.....	.....	.....	6.12	.....	3.05	.....	2.18	2.35	3.97	.....
1906,	0.76	0.68	4.33	1.43	5.08	5.00	3.00	3.18	2.94	3.67	1.25	2.25	33.57
1907,	3.36	0.90	1.45	2.94	2.56	4.59	3.53	0.92	5.01	3.15	2.85	3.83	35.09
1908,	2.40	2.51	3.07	3.59	4.02	2.80	4.96	3.11	0.95	2.48	1.00	1.30	32.19
1909,	2.41	2.40	1.89	4.90	3.28	5.50	2.30	2.74	2.88	2.06	1.18	1.75	33.28
1910,	3.75	3.58	0.15	6.39	3.83	3.65	2.30	2.30	4.45	1.17	0.99	0.95	33.51
1911,	1.26	2.20	1.15	.....	2.70	2.87	3.40	.....	3.50	2.70	.....	0.75	.....
1912,	0.65	1.75	2.27	2.45	.....	1.95	6.18	5.65	6.73	2.31	2.64	1.80	.....
1913,	2.35	0.30	2.95	2.97	3.00	2.00	2.65	2.45	3.00	.....	2.40	1.20	.....
1914,	2.30	2.30	2.30	4.65	6.52	2.65	3.12	5.41	0.97	1.87	1.95	2.43	36.37
1915,	4.48	1.85	0.90	1.25	2.86	3.00	12.30	5.59	2.08	2.92	1.28	2.55	41.06
Means,	2.27	1.95	2.41	3.16	3.48	3.66	4.38	3.65	2.90	2.75	2.25	2.33	35.18

Lebanon, Lebanon Co.—(Elevation 480 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1828,	......	......	......	......	......	......	3.17	5.15	3.47	1.52	4.65	0.22	......
1829,	5.09	2.60	2.24	3.40	4.34	3.79	6.78	3.37	2.62	3.62	3.31	2.56	44.22
1830,	2.80	0.65	5.57	2.63	5.49	5.18	1.42	2.23	3.03	3.74	5.99	4.65	43.33
1831,	4.64	2.75	2.07	3.60	1.17	4.86	6.26	3.40	5.84	3.38	2.18	1.32	41.47
1832,	4.42	4.96	1.80	1.54	4.76	1.85	1.36	4.18	2.63	3.22	2.30	4.34	37.26
1833,	2.74	0.56	1.66	0.57	4.58	9.00	5.97	1.07	4.14	6.97	2.34	5.18	44.78
1834,	3.37	2.04	1.86	2.90	3.98	5.78	3.98	0.98	2.39	2.89	2.18	2.85	35.20
1835,	2.26	1.50	3.80	5.45	2.03	4.17	3.78	3.79	3.98	1.85	3.71	1.30	37.62
1836,	4.40	3.05	1.45	2.80	3.32	6.32	2.00	3.47	1.18	4.10	3.37	4.36	39.82
1837,	1.90	1.78	4.94	2.25	2.82	4.33	4.41	3.52	3.88	2.16	1.31	2.17	34.97
1838,	3.89	1.41	3.18	2.58	5.64	3.89	0.40	2.71	3.20	3.63	4.20	1.13	35.65
1839,	4.22	2.70	0.59	3.76	4.40	3.71	5.67	2.98	3.99	1.14	2.27	2.30	37.73
1840,	1.59	2.39	2.68	4.12	3.77	2.58	1.89	1.54	1.40	1.75	2.87	3.28	28.86
1841,	4.39	0.90	3.87	4.62	4.90	3.64	2.45	2.07	2.97	1.47	2.94	4.65	38.87
1842,	1.23	2.53	2.00	5.13	3.98	3.95	6.47	3.58	2.00	2.77	3.38	2.82	39,84
1843,	3.04	2.61	6.18	2.15	2.68	2.02	2.76	4.39	7.30	4.55	3.60	2.84	44.12
1844,	4.15	2.15	3.55	1.43	4.60	2.56	2.15	1.71	2.56	3.40	1.80	2.14	32.19
1845,	2.27	2.16	2.57	0.76	2.49	5.22	0.83	2.38	2.11	7.27	3.07	2.15	33.28
1846,	2.38	3.51	3.78	2.40	9.38	4.67	3.19	3.20	3.23	3.59	6.10	3.20	47.62
1847,	3.70	3.35	3.48	1.00	3.36	1.86	6.04	2.04	7.46	4.46	5.22	6.68	48.60
1848,	2.61	1.62	2.88	0.69	2.26	2.81	6.00	2.17	1.76	1.69	3.83	5.10	33.42
1849,	1.61	1.88	4.98	1.37	4.36	3.96	0.39	1.51	0.71	6.81	2.38	5.00	34.96
1850,	5.61	4.70	3.97	2.09	5.92	6.45	10.14	5.46	8.75	4.61	1.93	4.49	64.12
1851,	1.00	4.42	3.25	5.67	4.36	3.80	1.85	2.50	1.36	1.50	4.05	3.15	35.50
1852,	2.45	2.45	4.45	4.79	2.61	3.75	3.21	5.47	1.47	1.55	6.65	5.05	43.90
1853,	1.55	4.65	1.62	4.25	5.58	0.49	5.91	7.82	4.28	3.70	1.79	1.52	43.11
1854,	3.08	5.05	2.11	4.43	3.76	4.63	2.92	0.80	0.92	2.04	5.47	2.38	37.58
1855,	3.82	3.45	2.03	2.18	2.98	8.50	10.29	3.17	5.34	5.49	0.93	5.45	53.63
1856,	2.53	1.30	1.82	4.30	2.93	2.85	2.16	4.46	1.97	1.46	3.56	3.71	31.55
1857,	3.07	1.40	1.72	5.19	9.80	10.05	4.94	4.91	2.52	1.58	2.65	2.78	50.61
1858,	2.23	1.00	1.09	3.48	9.35	4.52	1.81	4.78	2.00	3.13	4.73	5.17	43.28
1859,	3.80	3.48	5.92	5.25	3.37	4.85	4.90	2.43	10.20	3.19	2.42	3.89	53.70
1860,	3.06	3.55	1.33	4.45	10.65	5.18	0.93	7.03	2.44	1.51	4.95	2.92	48.60
1861,	3.57	1.97	2.86	4.09	4.18	1.60	6.28	5.49	4.23	5.47	4.03	1.25	45.02
1862,	5.31	1.86	3.45	3.86	2.17	9.22	3.23	1.62	1.10	3.34	2.62	0.86	38.64
1863,	4.86	3.16	5.25	4.45	3.68	4.54	11.43	0.89	4.93	4.35	3.79	5.42	56.73
1864,	2.08	0.61	3.46	4.06	5.75	2.48	1.87	3.27	6.05	1.77	3.24	3.84	38.43
1865,	3.92	1.54	6.65	2.81	6.61	4.95	4.61	1.70	5.38	3.20	3.35	3.50	46.52
1866,	1.74	4.39	1.21	2.37	2.98	4.87	3.74	4.23	5.51	2.83	3.34	2.30	39.46
1867,	2.00	4.41	4.16	2.48	7.96	3.93	2.86	12.91	2.41	1.67	0.70	3.08	48.47
1868,	3.82	1.81	1.76	4.30	5.15	4.12	3.06	1.48	4.81	2.18	3.49	2.37	37.80
1869,	3.17	2.80	3.62	2.83	3.70	4.55	3.92	1.16	2.57	7.89	2.26	5.13	43.80
1870,	3.52	3.75	2.04	4.28	4.24	4.70	3.61	4.17	3.37	2.60	1.71	3.10	40.98
1871,	2.43	3.68	5.50	2.54	2.98	4.18	7.08	5.48	2.27	2.02	3.10	1.38	41.40

1872,	0.99	1.11	....	....	....	....	....	....	....	....	....	....	....
1883,	4.35	4.22	3.70	2.89	2.98	8.54	2.96	2.68	4.46	5.93	1.42	3.25	47.41
1884,	3.95	4.59	4.88	2.92	3.96	4.02	6.15	4.56	0.94	3.85	3.13	5.82	48.77
1885,	5.25	3.30	1.32	3.02	4.48	1.46	3.03	5.48	0.51	8.20	4.64	3.10	44.09
1886,	6.11	3.65	5.03	2.90	6.06	2.66	5.45	0.77	0.85	2.51	4.16	3.46	42.64
1888,	1.64	3.89	4.06	3.12	5.08	2.57	2.50	7.73	4.92	3.22	3.26	3.77	45.78
1889,	4.26	1.85	3.45	5.47	†5.47	†8.66	4.34	3.07	3.45	4.47	9.99	2.20	56.68
1890,	2.59	3.78	6.46	3.39	6.79	2.80	3.36	5.12	5.15	5.52	1.23	3.98	50.17
1891,	•5.30	3.33	5.30	2.19	8.00	3.40	8.70	5.06	1.07	3.14	2.44	4.34	•47.27
1892,	6.27	0.95	4.91	2.22	6.14	4.75	4.75	3.80	3.63	0.29	4.55	1.96	43.22
1893,	2.10	5.67	2.63	3.67	8.06	2.21	2.67	5.30	3.79	3.95	3.42	2.85	45.81
1894,	2.17	4.23	1.48	4.77	9.45	1.91	1.42	4.17	5.47	6.14	2.57	4.17	50.95
1895,	4.70	0.87	2.49	5.10	1.85	1.88	2.10	1.97	1.32	2.31	1.95	4.14	30.68
1896,	1.11	6.31	5.29	1.29	4.54	4.51	6.38	0.56	2.92	4.70	4.76	0.68	43.06
1897,	2.26	3.75	3.46	3.51	6.52	3.00	5.89	2.51	1.57	2.36	5.76	4.05	44.64
1898,	4.27	1.59	3.20	3.18	7.90	1.30	3.58	10.43	0.99	5.38	5.54	3.41	50.77
1899,	3.67	5.16	5.21	1.51	4.53	5.54	1.91	3.18	6.20	0.95	2.59	1.75	42.20
1900,	2.81	5.50	2.94	2.08	2.13	3.64	5.43	4.26	1.84	1.35	2.85	2.39	37.22
1901,	2.46	0.84	4.36	4.02	6.05	3.24	3.61	8.66	3.65	1.40	1.39	6.35	46.03
1902,	3.62	5.67	4.79	3.38	0.43	6.18	4.21	5.49	4.43	5.98	1.45	7.46	53.04
1903,	4.68	5.95	4.65	3.67	0.94	6.06	3.94	7.28	2.55	4.48	1.28	3.15	48.65
1904,	3.58	2.22	3.50	2.48	5.60	5.52	5.89	5.56	3.81	3.06	1.63	2.71	45.56
1905,	4.85	1.91	4.60	2.46	2.67	3.53	4.92	8.21	2.73	5.43	2.69	3.23	47.22
1906,	3.33	3.07	5.41	4.58	2.43	5.75	4.06	6.76	1.48	5.75	0.83	4.99	48.44
1907,	3.70	2.50	3.98	2.30	2.34	3.33	3.54	3.26	6.20	3.07	4.01	5.76	48.89
1908,	2.77	6.43	3.90	3.16	7.91	2.22	6.36	1.29	1.76	3.14	0.74	2.76	42.44
1909,	2.85	5.41	3.32	3.86	2.96	3.27	0.87	0.33	1.30	2.48	1.05	3.75	31.65
1910,	4.72	4.39	0.75	6.35	2.44	5.77	2.20	2.94	6.14	1.94	2.81	2.44	42.89
1911,	3.00	2.09	3.17	3.28	1.63	4.43	3.83	7.12	3.53	3.79	3.23	•3.37	•42.47
1912,	2.15	2.10	5.53	4.03	•2.48	•2.61	•5.65	2.12	4.74	2.19	•2.36	4.03	•39.99
1913,	2.70	1.70	6.07	4.45	2.16	0.66	0.82	•3.47	•4.59	•6.24	•2.15	•3.23	•38.54
1914,	3.35	1.67	1.83	•4.05	2.16	4.93	8.93	5.80	1.12	•1.46	•1.53	•4.52	•41.41
1915,	•6.29	•5.20	1.48	2.10	3.24	4.52	4.68	11.98	2.85	2.41	2.59	4.03	•51.37
Means,	3.62	3.56	3.85	3.35	4.18	3.90	4.29	4.72	3.14	3.66	2.94	3.64	44.85

Note: 1828 to 1872, winter sums do not include all snowfall.
†Myerstown record for May and June, 1889.
•Interpolated.
Means are only for period 1883 to 1915 inclusive.

Le Roy, Bradford Co.—(Elevation 1,400 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	1.59	1.38	1.63	3.19	4.41	6.94	8.33	2.08	3.13	4.73	5.80	2.45	45.66
1890,	2.01	2.96	4.58	3.26	7.00	4.37	2.51	5.71	5.45	5.32	0.89	5.78	49.84
1891,	4.63	3.13	3.15	2.01	1.18	4.75	3.05	4.33	2.00	4.26	3.24	4.34	40.06
1892,	4.60	1.09	4.25	0.96	5.14	7.97	2.39	4.04	2.04	0.91	3.22	0.93	37.54
1893,	2.59	3.86	3.10	4.19	7.76	1.96	2.18	5.92	2.70	3.91	2.07	2.71	42.95
1894,	2.43	3.04	1.00	6.12	8.35	1.64	2.98	1.23	6.44	5.29	2.47	3.39	43.38
1895,	3.27	0.80	1.55	2.62	3.24	3.69	3.42	3.81	3.11	0.66	3.06	4.05	33.27
1896,	2.00	4.66	4.58	1.44	2.46	2.66	5.84	2.22	3.87	5.04	2.92	0.79	38.48
1897,	2.13	2.28	2.55	2.70	4.84	3.77	3.95	4.40	3.08	1.30	3.31	2.89	37.70
1898,	3.30	2.05	3.39	4.61	3.65	2.75	3.06	6.95	0.81	5.37	2.62	1.58	40.14
1899,	2.19	3.05	3.02	2.15	2.07	4.90	1.93	6.84	2.85	1.34	3.64	4.47	38.45
1900,	1.94	3.07	5.45	1.34	1.50	3.40	4.06	2.14	0.54	3.88	4.71	2.12	34.15
1901,	0.99	0.75	4.21	4.68	5.34	3.44	3.22	5.40	3.70	1.16	2.83	8.26	43.98
1902,	2.59	3.02	4.76	3.16	1.47	5.40	9.46	4.81	4.67	3.29	0.90	3.46	46.49
1903,	2.95	3.00	4.37	2.97	3.00	5.13	4.17	4.40	1.57	5.08	2.76	2.60	41.00
1904,	2.83	1.13	3.94	3.15	5.45	3.50	2.21	4.80	3.53	2.58	0.65	1.65	35.42
1905,	4.05	0.79	3.10	2.38	1.89	4.19	4.12	5.40	3.04	3.62	1.60	3.36	37.54
1906,	1.24	0.86	4.26	2.69	4.97	4.19	4.87	4.51	1.61	4.63	1.47	2.61	37.91
1907,	2.97	1.28	1.51	3.67	1.85	4.13	2.52	0.77	7.07	3.40	2.79	3.91	34.85
1908,	2.79	4.46	2.93	2.65	4.08	2.48	3.78	2.83	0.88	3.04	0.83	2.31	32.54
1909,	2.35	3.55	2.48	5.70	2.61	4.26	1.02	2.71	2.17	2.01	1.24	2.70	32.80
1910,	4.50	3.15	0.89	7.49	3.27	3.94	1.33	2.81	4.47	0.87	2.45	2.68	37.80
1911,	2.11	1.96	2.55	2.43	2.06	2.13	3.98	3.77	4.00	3.39	1.55	2.08	32.00
1912,	1.20	2.50	3.21	4.98	2.74	1.00	3.98	6.27	6.73	1.98	3.14	1.84	39.52
1913,	3.35	1.56	4.96	3.97	3.88	1.16	3.84	1.84	3.31	3.36	2.97	2.93	37.13
1914,	2.64	2.92	2.82	5.38	4.74	3.74	3.44	5.18	0.86	1.68	1.49	4.02	38.41
1915,	6.27	2.64	1.20	1.13	2.70	4.83	7.34	5.65	2.45	1.66	1.46	2.97	40.20
Means,	2.80	2.40	3.16	3.33	3.73	3.79	3.81	4.06	3.13	3.10	2.47	3.07	38.85

Lewisburg, Union Co.—(Elevation 457 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1856,	....	0.70	1.49	3.02	3.03	2.39	3.21	2.47	2.04	0.74	2.43	2.67	....
1857,	1.35	1.11	1.20	2.38	6.70	7.28	4.19	3.02	2.01	1.82	2.23	4.73	38.92
1858,	2.23	1.64	0.45	3.38	6.57	4.04	4.55	4.44	2.08	2.29	3.72	4.47	39.86
1859,	2.00	2.73	6.67	5.73	2.30	4.34	2.32	4.46	4.97	1.03	2.12	3.94	41.51
1860,	1.43	2.53	2.15	....	....	2.86	2.82	....	2.31	4.55	....	....	....
1865,	4.73	3.38	6.46	2.36	5.48	5.22	3.79	2.12	5.46	1.34	2.47	3.12	45.93
1866,	1.91	2.73	1.47	3.25	3.47	3.64	2.63	4.31	5.18	4.50	4.60	2.80	40.49
1867,	1.61	4.10	2.45	4.26	8.52	4.91	2.73	8.74	3.13	2.78	1.40	2.77	47.40
1868,	2.56	1.57	2.37	3.85	4.10	2.71	2.05	3.65	5.71	0.83	5.40	2.14	36.94
1869,	2.10	1.62	3.51	2.56	4.07	4.13	4.11	2.19	2.92	5.20	2.57	3.25	38.63
1870,	4.10	4.55	1.96	4.74	3.19	5.17	3.99	2.67	2.57	3.38	1.60	1.53	39.39
1871,	2.25	1.70	4.01	1.43	1.58	4.28	6.42	4.33	1.57	2.94	2.40	1.43	34.15
1872,	1.54	1.75	....	....	2.04	5.31	5.97	9.50	2.87	4.73	2.29	....	....
1873,	....	....	3.82	4.46	2.94	1.95	4.96	10.57	2.48	6.02	1.93	....	....
1889,	....	....	....	....	....	....	....	....	....	3.04	7.13	2.67	....
1890,	1.92	3.89	3.21	3.54	8.40	2.80	3.79	5.78	3.70	5.74	1.21	2.99	44.97
1891,	3.33	3.75	6.40	2.39	0.67	5.21	5.09	9.42	2.90	3.75	*2.40	*4.40	*49.71
1892,	....	....	5.56	2.34	4.96	5.21	3.40	4.55	4.18	0.22	3.94	0.70	....
1893,	2.46	4.37	3.07	4.62	6.42	4.36	2.35	....	1.74	3.20	1.61	....	....
1894,	2.84	2.16	1.13	3.33	9.40	2.39	1.36	2.17	5.69	6.02	1.56	4.06	44.11
1895,	3.26	1.35	1.38	2.41	3.06	4.13	2.54	4.22	4.11	1.29	2.96	4.09	35.24
1896,	1.98	4.46	3.13	1.11	2.16	4.70	5.62	1.39	3.66	5.68	5.35	1.29	41.04
1897,	3.27	2.54	4.74	3.21	4.30	1.31	4.72	2.52	2.01	2.68	4.76	3.94	40.39
1898,	3.62	2.17	4.23	2.53	6.04	2.79	4.21	9.68	0.93	5.76	2.33	2.44	47.13
1899,	2.35	4.57	4.36	1.59	4.32	3.86	1.53	5.49	4.36	1.36	2.58	3.98	41.12
1900,	2.88	2.91	5.60	1.07	3.16	2.21	3.26	4.08	0.65	3.05	4.24	2.38	36.95
1901,	1.67	0.74	4.49	4.39	7.66	2.09	5.02	10.60	3.86	1.16	1.75	6.90	50.61
1902,	3.53	4.11	5.84	2.76	0.62	8.28	6.86	2.12	6.40	4.86	1.86	4.96	52.44
1903,	3.95	1.85	3.32	4.34	2.46	8.02	5.73	1.21	2.21	3.47	1.69	2.00	47.19
1904,	4.52	1.62	3.75	3.78	5.40	1.94	3.61	3.76	3.41	2.69	0.72	1.79	36.99
1905,	1.70	3.89	5.00	1.64	2.11	4.93	5.99	5.40	3.39	4.03	2.06	3.97	41.79
1906,	2.61	1.96	5.64	4.53	2.09	5.85	3.63	5.97	2.97	4.58	0.83	2.89	46.55
1907,	3.40	1.30	3.88	1.82	2.69	3.61	2.62	2.94	11.86	2.86	2.45	3.72	45.15
1908,	1.69	6.01	5.11	3.64	5.67	1.68	9.29	2.68	1.43	2.65	0.39	2.56	43.75
1909,	2.47	4.86	2.53	6.44	2.37	3.10	1.00	1.63	2.12	2.16	6.76	4.19	39.68
1910,	5.94	3.71	0.72	6.47	3.92	5.74	1.21	1.80	5.92	1.01	1.79	3.73	41.96
1911,	3.45	2.39	2.05	3.06	2.13	3.28	2.69	6.97	3.97	5.57	2.08	4.00	41.64
1912,	1.58	2.57	4.77	4.74	4.27	1.40	6.22	4.59	6.47	2.21	3.17	2.84	47.13
1913,	4.00	1.53	4.29	4.25	3.02	2.97	5.90	*1.72	2.08	4.67	2.23	3.32	*40.57
1914,	3.85	3.35	2.54	3.73	3.02	4.21	4.33	5.85	1.20	2.26	1.55	5.08	42.37
1915,	7.31	4.26	1.75	2.48	3.67	3.48	4.88	5.40	2.74	2.09	1.67	3.43	43.16
Means,	2.96	2.91	3.49	3.48	4.01	4.08	4.01	4.71	3.48	3.18	2.52	3.33	42.18

*Interpolated.

Ligonier, Westmoreland Co.—(Elevation 1,750 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1890,	....	....	....	3.38	6.79	1.94	2.47	9.37	8.54	5.50	2.13	3.69	....
1891,	3.39	8.29	4.50	2.23	4.41	8.27	5.95	2.81	2.17	0.88	2.93	4.41	50.24
1892,	3.11	2.59	2.97	....	2.06	7.51	3.43	2.24	2.14	0.51	....	2.12	....
1893,	2.60	....	1.73	5.52	6.13	3.67	6.21	2.19	2.84	2.98	....	....	....
1894,	1.84	2.78	2.29	4.71	5.33	....	....	....	....	....	....	....	....

Linesville, Crawford Co.—(Elevation 1,110 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1912,	....	....	3.18	5.56	3.90	2.47	3.64	4.99	3.11	5.74	1.66	4.07	....
1913,	6.87	....	8.91	2.29	2.54	6.55	4.41	0.50	1.72	4.87	2.72	1.98	....
1914,	3.52	2.82	3.89	4.87	4.54	2.95	3.14	3.92	1.25	3.47	2.18	4.35	39.90
1915,	3.03	2.94	1.07	1.00	3.72	2.76	6.47	5.24	2.76	2.62	2.37	4.57	38.55

Note: This station maintained and operated by Water Supply Commission of Pennsylvania.

Lloyd, Tioga Co.—(Elevation 2,180 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1911,	....	1.58	1.34	1.14	1.52	3.25	1.55	2.60	2.69	2.84	2.70	1.36	....
1912,	1.00	2.80	3.10	4.02	3.97	0.86	5.08	5.71	4.33	2.13	3.49	2.51	38.00
1913,	6.23	0.94	5.08	4.23	4.32	3.00	4.42	2.41	2.40	5.76	2.41	1.91	43.10
1914,	3.01	2.23	1.83	1.90	5.51	2.84	2.65	3.90	0.67	2.63	1.10	2.36	31.62
1915,	5.98	2.91	1.00	1.67	3.13	5.38	4.11	3.08	2.42	4.00	1.95	3.76	40.29
Means,	4.06	2.09	2.47	2.59	3.69	3.07	3.56	3.72	2.50	3.47	2.13	2.58	35.93

Lock Haven, Clinton Co.—(Elevation 560 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	0.85	4.44	4.05	1.02	1.49	3.67	5.16	3.59	5.46	4.44	2.64	1.08	37.83
1897,	1.67	3.67	3.17	2.90	4.65	2.72	5.14	3.94	3.93	0.77	4.93	2.59	39.08
1898,	4.11	1.51	5.02	2.24	4.10	3.45	3.76	4.90	0.36	5.19	2.24	2.14	39.03
1899,	2.16	3.72	3.27	1.06	3.30	3.80	2.16	5.05	3.57	0.43	3.26	3.56	35.34
1900,	2.40	4.04	3.42	1.20	0.94	1.58	3.03	4.45	0.65	4.92	4.95	1.70	33.23
1901,	2.32	0.80	4.11	5.67	7.42	3.53	3.21	6.54	4.38	1.37	2.90	5.72	47.97
1902,	2.57	2.10	4.32	3.74	0.93	5.59	10.90	2.67	7.28	4.43	1.21	4.40	50.04
1903,	3.78	3.40	4.06	2.72	1.56	6.43	4.63	6.38	2.46	2.88	2.58	1.52	42.40
1904,	3.66	2.33	4.99	4.52	3.66	2.73	2.92	4.09	1.95	1.92	0.48	2.83	36.08
Means,	2.61	2.78	4.05	2.79	3.12	3.72	4.55	4.61	3.34	2.93	2.80	2.83	40.13

Lock Haven, Clinton Co.—(Elevation 560 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	....	....	2.33	2.51	3.87	2.00	4.75	7.32	4.52	5.22	4.59	3.31	....
1889,	2.18	1.74	2.63	3.97	....	....	....	....	4.73	....	6.96	4.19	....
1890,	2.34	4.94	5.48	4.22	7.20	3.61	2.85	3.83	3.87	5.36	1.35	4.43	49.48
1891,	4.71	4.61	4.06	1.48	1.86	5.14	6.95	4.49	2.41	2.81	2.82	4.44	45.78
1892,	4.56	1.67	4.73	1.21	4.90	9.66	3.92	3.72	1.34	0.38	3.34	1.36	40.79
1893,	2.71	5.28	2.26	4.77	4.89	2.51	3.34	2.82	3.70	2.67	1.09	2.14	38.18
1894,	1.77	3.67	0.84	5.81	....	3.52	2.96	5.51	6.46	5.73	1.99	3.73	....
1895,	4.73	1.00	1.69	0.79	2.35	4.84	2.83	3.27	3.18	1.35	2.48	3.46	31.97
1896,	1.10	5.36	5.48	1.21	1.70	4.33	5.75	3.92	5.80	4.92	3.06	1.42	44.05
1897,	1.66	3.52	3.27	3.42	5.00	3.05	5.65	2.32	4.21	0.89	5.89	2.98	41.86
1898,	3.99	2.53	5.79	3.17	4.43	3.57	3.51	5.11	0.38	5.28	2.39	3.98	44.13
1899,	2.79	3.19	3.79	1.10	3.67	4.47	2.40	5.96	8.68	1.12	2.93	3.61	38.11
1900,	2.49	3.33	3.89	1.41	1.29	1.60	2.77	4.37	0.61	4.25	4.94	1.78	32.73
1901,	2.46	1.16	3.94	4.70	7.11	3.48	2.33	7.50	3.20	1.25	2.77	5.70	45.60
1902,	2.76	3.50	4.98	5.01	0.70	6.12	8.34	1.86	4.52	3.93	1.06	4.27	47.09
1903,	3.73	2.99	3.97	2.81	1.69	7.44	5.34	6.37	3.30	3.76	1.67	2.37	45.34
1904,	3.66	2.33	4.99	4.52	3.66	2.73	2.92	4.09	1.95	1.92	0.48	2.83	36.08
1905,	3.42	1.70	3.34	2.32	3.01	7.02	4.13	5.74	3.44	3.88	2.17	3.38	43.15
1906,	1.82	1.41	4.39	3.13	2.88	3.07	5.30	4.14	2.32	4.17	1.63	3.25	37.51
1907,	3.97	1.53	3.76	1.98	2.10	4.35	3.88	1.76	8.55	2.42	2.37	3.95	40.62
1908,	2.70	4.49	4.52	4.00	7.74	2.16	4.39	2.26	1.18	1.92	1.07	3.13	39.56
1909,	2.19	4.39	2.68	6.04	4.33	5.22	1.27	1.85	2.41	2.39	0.66	2.86	36.29
1910,	6.14	2.82	0.71	5.61	3.37	3.67	1.88	1.93	5.38	1.11	1.74	1.76	36.12
1911,	3.08	2.42	1.87	3.39	1.52	5.25	2.06	7.59	5.88	4.49	1.79	3.40	42.63
1912,	1.17	3.28	4.24	4.70	2.93	1.73	2.16	5.11	5.54	2.85	2.55	2.44	38.79
1913,	4.51	1.37	4.87	3.93	3.54	3.83	7.41	1.06	3.21	5.39	2.21	2.90	44.22
1914,	5.77	2.98	2.82	4.85	4.02	3.68	3.30	3.20	0.88	3.07	0.99	3.99	39.46
1915,	5.54	3.61	1.87	0.85	4.59	5.12	6.34	....	2.14	1.91	1.61	3.82	....
Means,	3.33	2.91	3.52	3.32	3.63	4.20	4.02	4.09	3.56	3.13	2.45	3.24	41.40

Lock No. 4, Washington Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1886,	3.91	0.93	2.32	3.25	4.77	5.56	3.74	3.07	3.94	0.98	4.36	2.92	39.75
1887,	1.83	[illegible]	0.97	3.11	3.16	6.69	6.59	2.25	2.56	3.13	1.82	1.39	39.19
1888,	[illegible]	1.54	3.91	1.59	3.27	2.32	6.09	9.02	3.37	5.01	8.22	1.82	47.29
1889,	[illegible]	1.67	2.56	4.27	5.84	5.67	3.25	2.18	6.01	3.27	5.96	2.77	45.10
1890,	5.57	5.01	5.62	3.25	7.80	2.80	4.65	7.39	6.12	6.82	1.77	5.83	62.75
1891,	3.21	7.23	4.04	1.77	4.29	4.56	7.00	2.98	2.02	2.12	2.70	3.53	45.40
1892,	3.90	2.44	2.24	2.61	4.72	5.14	3.90	1.07	1.83	0.58	3.16	2.16	33.75
1893,	2.81	5.43	1.06	4.62	5.19	2.90	2.92	2.42	1.10	3.84	1.35	3.32	36.96
1894,	2.34	2.74	1.95	2.95	4.21	2.38	2.52	1.63	4.19	1.36	2.33	3.56	32.16
1895,	3.64	0.55	1.82	2.49	1.71	1.94	2.87	2.36	0.55	0.67	3.11	3.14	24.86
1896,	2.00	2.67	4.03	2.73	3.30	4.00	12.35	2.37	4.57	3.19	2.66	1.46	45.33
1897,	1.53	4.62	2.29	3.35	2.63	2.72	3.72	1.64	1.37	0.06	5.95	3.34	33.22
1898,	5.02	1.71	5.64	2.05	3.72	3.02	2.37	7.70	2.99	3.78	2.41	1.98	42.39
1899,	3.13	3.26	4.91	1.42	4.38	2.39	6.05	1.48	4.62	0.69	3.54	2.78	38.65
1900,	2.25	2.87	3.20	1.74	1.52	2.56	4.92	1.83	0.48	2.77	5.01	1.86	31.01
1901,	1.41	0.47	3.43	8.52	5.68	3.96	4.90	2.48	2.70	0.77	1.75	5.22	41.32
1902,	2.19	1.39	3.04	3.75	2.05	3.35	7.01	2.82	1.55	4.58	1.14	3.96	36.83
1903,	2.77	4.49	4.72	3.01	2.80	6.83	4.59	2.00	2.83	2.91	2.06	1.67	40.68
1904,	2.64	2.71	5.68	3.57	3.40	3.79	4.49	2.42	0.82	1.89	0.14	2.35	33.40
1905,	2.28	1.60	4.57	2.88	2.46	7.60	5.31	3.05	2.76	3.76	2.50	3.67	42.44
1906,	2.39	0.96	3.44	2.66	4.07	5.00	3.74	5.30	1.64	3.81	0.68	3.61	37.30
1907,	5.50	1.27	8.20	2.58	3.30	3.81	4.39	3.02	4.85	2.01	1.86	2.82	43.56
1908,	1.75	3.87	6.88	3.24	5.10	2.02	2.41	3.33	1.06	0.95	0.74	2.43	33.78
1909,	2.59	5.32	3.52	5.40	3.09	5.38	3.05	5.53	1.46	2.59	0.61	1.67	40.21
1910,	5.99	3.25	0.37	2.83	2.92	3.57	1.86	3.31	3.63	1.35	1.76	2.73	33.57
1911,	3.67	1.78	1.82	4.30	1.93	4.70	2.16	7.05	6.31	4.12	2.61	3.23	43.68
1912,	1.74	1.51	4.80	4.66	2.25	2.99	8.50	4.45	5.52	1.65	1.38	2.23	41.72
1913,	5.83	1.84	3.22	3.08	4.66	2.09	3.91	1.17	1.79	4.04	2.98	2.38	36.99
1914,	1.31	3.13	1.45	4.07	2.40	3.12	2.11	3.85	1.25	2.42	1.16	5.71	31.98
1915,	4.12	2.75	0.94	1.40	5.28	2.55	4.53	1.92	2.10	3.21	2.11	3.69	34.60
Means,	3.30	2.82	3.42	3.24	3.73	3.85	4.51	3.36	2.84	2.59	2.43	2.97	38.99

Lycippus, Westmoreland Co.—(Elevation 1,420 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1892,	3.55	2.56	2.06	2.78	5.52	6.13	3.69	1.71	2.12	0.68	3.30	....	....
1893,	2.12	5.34	1.43	5.87	5.60	3.75	6.36	1.68	1.57	2.92	1.72	3.51	41.87
1894,	2.56	2.31	2.31	3.99	6.71	1.66	3.24	1.00	7.68	2.28	2.45	5.15	41.43
1895,	4.66	0.79	2.53	4.46	1.34	3.07	3.82	3.94	1.03	0.76	2.75	2.70	31.85
1896,	1.59	3.07	4.17	2.33	3.06	3.98	12.94	4.48	4.59	3.18	3.10	1.31	46.80
1897,	2.43	4.70	4.15	3.93	4.08	2.42	2.82	4.52	2.34	0.60	5.41	5.43	42.83
1898,	5.33	1.80	6.22	2.25	3.82	2.99	3.83	9.13	2.03	5.04	2.89	3.31	48.64
1899,	3.65	3.91	4.62	2.03	6.01	3.91	3.79	3.65	3.63	2.31	1.74	3.22	41.47
1900,	2.49	4.34	2.25	1.51	2.30	5.06	6.11	3.51	1.37	2.70	5.35	2.37	39.36
1901,	2.83	1.15	3.55	8.23	7.17	4.49	3.91	3.19	3.06	0.48	3.02	4.79	45.87
1902,	3.83	2.74	3.91	4.20	1.28	6.00	4.79	2.26	2.08	4.12	1.62	5.17	42.04
1903,	3.48	4.30	3.42	2.43	1.56	4.55	5.00	3.75	1.53	2.34	2,73	2.48	37.57
1904,	3.38	3.23	6.00	2.74	4.26	3.89	5.95	3.76	1.31	1.45	0.32	2.69	37.97
1905,	4.58	2.26	4.23	3.89	5.17	7.22	6.24	4.72	2.34	4 92	2.36	3.58	51.51
1906,	2.57	1.37	4.00	1.90	2.78	7.82	3.93	8.99	2.14	2.62	1.64	4.65	44.41
1907,	6.85	1.69	7.08	3.96	3.27	4.42	6.17	4.25	5.02	2.89	2.77	3.37	49.69
1908,	3.20	3.08	7.10	4.77	7.02	2.46	4.38	1.53	0.62	0.38	0.85	3.21	38.60
1909,	2.90	4.25	3.35	5.95	2.64	4.90	3.50	3.50	1.77	3.28	1.05	3.05	39.84
1910,	8.62	3.61	0.53	3.89	3.18	5.01	4.22	2.40	4.83	2.04	2.61	3.97	45.00
1911,	5.54	3.34	2.76	4.77	1.46	4.81	3.15	5.80	9.73	4.19	2.89	4.72	52.16
1912,	2.55	2.48	7.60	4.22	2.91	6.48	8.50	5.41	6.87	3.40	0.98	2.92	54.23
1913,	7.89	3.03	4.63	3.16	4.89	1.52	5.94	4.21	3.46	5.96	4.43	3.92	53.08
1914,	3.04	4.64	4.28	7.15	2.90	4.29	2.50	5.01	1.06	2.22	1.57	5.64	44.39
1915,	6.41	3.54	1.73	2.12	6.44	3.33	3.05	2.65	1.81	4,28	3.02	5.70	44.68
Means,	4.00	3.02	3.87	3.81	3.89	4.33	4.90	3.97	3.08	2.71	2.52	3.77	43.87

Lykens, Dauphin Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	....	....	....	....	....	....	....	....	....	1.44	2.16	5.13	....
1915,	7.22	4.00	1.54	2.82	3.08	3.81	6.45	10.91	2.46	2.06	2.60	4.45	51.47

McCall Ferry, Lancaster Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	....	....	....	....	....	....	b4.08	2.11	0.61	1.25	1.81	3.82	....
1915,	7.39	5.76	0.85	2.01	4.56	4.61	1.82	9.86	2.06	1.54	1.74	3.33	46.03

McConnellsburg, Fulton Co.—(Elevation 875 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	4.32	2.76	3.76	2.54	4.70	3.10	2.68	8.61	4.03	3.62	3.14	2.70	45.96
1889,	3.53	1.65	4.76	5.28	12.41	5.17	8.23	....	....	3.14	6.51	2.44	....
1890,	2.09	4.00	5.41	3.38	7.90	4.87	3.12	6.60	2.62	6.92	1.59	3.30	51.80
1891,	4.53	4.60	7.45	2.58	1.71	6.23	6.32	4.82	2.65	3.39	3.03	5.62	52.93
1892,	4.25	1.47	3.49	2.19	5.97	3.21	4.70	1.07	2.81	0.00	3.76	1.55	34.47
1893,	1.71	4.18	1.77	4.61	6.20	1.87	2.90	....	....	....	....	....	....
Means,	3.40	3.11	4.44	3.43	6.43	4.08	4.66	....	....	3.41	3.60	3.12	....

Mahoning, Armstrong Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	....	....	....	....	....	....	....	....	....	....	....	1.86	....
1889,	3.26	1.25	1.45	4.58	2.95	4.00	3.00	1.18	1.88	1.90	2.64	3.56	31.72
1890,	4.03	3.06	3.72	2.83	5.63	1.76	0.59	3.58	4.52	5.54	1.56	1.60	38.47
1891,	2.82	7.20	3.10	2.86	1.81	5.23	3.81	2.89	1.01	1.61	4.01	3.65	40.00
1892,	1.69	3.33	3.72	1.92	6.67	3.87	2.87	1.89	3.53	0.75	2.95	1.40	34.59
1893,	2.88	9.28	2.30	5.71	4.33	4.52	4.89	4.48	2.77	3.40	2.86	4.46	51.38
1894,	3.03	3.06	2.55	3.94	4.81	3.02	1.60	0.30	7.91	2.19	2.03	4.53	38.97
1895,	4.65	0.59	1.51	3.40	2.28	3.46	3.44	3.24	0.69	0.56	....	....	....
Means,	3.19	3.97	2.62	3.60	4.09	3.71	2.89	2.51	3.19	2.28	2.60	3.01	37.66

Marion, Franklin Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1903,	....	....	....	....	....	5.02	5.54	6.02	1.52	3.17	1.57	1.81	....
1904,	3.04	1.82	2.34	2.54	2.78	6.62	3.54	1.75	1.88	2.39	0.45	2.90	31.05
1905,	4.37	1.95	3.14	1.83	2.21	4.68	6.11	4.73	2.63	3.38	2.00	4.02	41.02
1906,	2.62	1.66	4.98	2.70	2.06	6.00	2.24	5.95	0.66	4.75	1.07	4.65	39.38
1907,	3.89	2.30	2.95	3.17	4.33	4.78	8.34	2.08	4.82	1.86	3.89	5.14	46.95
1908,	2.82	5.68	4.27	3.63	7.27	1.60	4.68	4.01	2.57	1.43	0.85	2.08	40.89
1909,	2.93	4.43	2.47	3.18	3.42	5.56	1.23	2.45	1.12	2.98	0.46	3.65	32.88
1910,	4.06	3.63	0.20	5.47	3.38	6.75	1.14	1.41	3.08	1.26	1.11	2.65	33.97
1911,	3.41	2.07	2.02	2.32	1.08	5.03	3.01	8.91	3.51	2.78	2.96	3.63	40.73
1912,	2.13	2.14	6.08	4.94	3.85	4.41	3.63	3.14	6.44	1.20	2.01	3.39	43.31
1913,	3.65	2.18	6.44	2.27	4.72	1.35	3.67	2.96	4.15	6.71	2.92	3.25	43.26
1914,	3.56	2.81	2.14	4.19	3.21	1.98	4.13	2.95	0.77	1.54	2.08	5.61	34.97
1915,	6.39	4.26	1.47	2.21	4.85	3.78	5.98	7.01	2.70	3.05	1.28	3.66	46.26
Means,	3.57	2.91	3.12	3.20	3.46	4.35	4.09	4.11	2.76	2.77	1.76	3.57	39.67

Mauch Chunk (or East Mauch Chunk), Carbon Co.—(Elevation 550 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	......	......	......	......	......	......	......	......	......	4.95	8.18	3.58	......
1890,	2.86	5.36	6.07	3.45	8.11	5.25	5.79	8.59	4.64	4.03	1.00	3.18	58.33
1891,	6.90	3.92	5.69	0.89	1.24	4.36	7.68	5.89	1.87	2.89	......	......	......
1892,	......	1.14	5.17	1.44	5.12	8.33	3.60	3.90	2.62	0.82	6.09	1.26	......
1893,	3.59	7.37	4.24	3.92	6.68	1.54	3.26	4.45	3.85	2.94	3.26	2.84	47.94
1894,	2.17	4.11	1.67	3.58	13.66	2.87	2.12	1.86	5.63	7.06	3.23	4.05	52.11
1895,	5.06	2.02	2.53	6.32	2.98	1.74	5.41	2.12	1.27	2.80	3.00	5.72	40.97
1896,	1.89	7.16	6.95	1.32	3.24	5.52	6.20	2.85	6.31	4.13	6.74	1.21	53.52
1897,	2.96	3.74	3.31	3.29	7.64	2.08	8.33	2.94	2.14	2.36	6.59	5.16	50.54
1898,	4.98	1.87	3.48	4.50	5.67	1.86	3.58	7.35	1.44	6.31	4.76	3.75	49.05
1899,	3.07	5.16	5.75	2.35	2.66	4.14	4.06	4.69	6.05	1.49	2.28	2.95	44.65
1900,	3.37	6.48	5.32	1.48	2.20	1.82	7.87	2.80	1.20	2.43	2.75	3.27	41.09
1901,	2.06	0.89	6.20	4.68	6.34	1.98	2.61	10.88	6.10	2.00	2.00	10.26	56.00
1902,	4.54	7.16	4.89	5.45	0.59	8.93	6.64	3.64	7.90	5.85	1.56	7.90	65.05
1903,	4.21	6.93	5.50	4.40	0.55	7.99	7.01	5.29	1.90	6.26	1.28	4.08	54.33
1904,	4.78	1.31	5.64	2.89	3.38	4.99	7.06	4.51	3.10	4.49	2.02	2.51	46.68
1905,	5.39	1.48	4.43	2.68	1.30	2.30	2.50	5.95	6.31	5.25	2.68	3.81	44.08
1906,	2.81	3.10	6.38	5.18	2.90	5.85	3.14	5.02	2.79	6.19	1.78	4.48	49.62
1907,	3.69	2.20	3.24	2.09	2.49	5.22	2.61	2.51	9.03	3.91	5.99	7.01	49.99
1908,	3.14	8.15	4.02	3.89	7.03	2.39	5.33	4.60	2.80	3.32	0.97	3.18	48.82
1909,	4.01	6.90	3.46	5.76	2.60	3.19	2.46	0.94	4.41	2.61	1.77	4.76	42.87
1910,	6.10	3.97	0.82	7.35	4.55	3.63	2.16	4.00	4.37	1.52	3.24	3.08	44.79
1911,	3.45	2.41	3.16	4.10	1.85	6.81	6.08	9.36	4.20	5.20	4.08	3.64	54.34
1912,	2.03	2.93	5.69	5.23	4.16	2.27	4.22	6.13	4.90	4.56	4.19	5.52	51.83
1913,	4.02	2.10	7.90	7.54	2.85	1.84	4.19	4.51	4.38	6.04	3.20	3.92	52.49
1914,	3.70	2.50	2.93	4.80	2.84	5.06	7.14	3.40	0.50	2.05	2.39	6.31	43.62
1915,	6.60	5.93	1.35	1.96	3.68	2.75	7.50	11.31	2.00	1.96	2.85	5.16	53.06
Means,	3.90	4.05	4.45	3.87	4.09	4.01	4.94	4.98	3.89	3.83	3.38	4.33	49.72

Media, Delaware Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1915,	7.07	6.75	1.51	2.78	4.75	3.78	5.45	8.13	0.64	2.45	1.48	4.81	49.60

Mifflin, Juniata Co.—(Elevation 490 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1895,	......	......	......	......	1.87	3.67	2.03	1.62	3.88	1.20	1.91	4.00	......
1896,	2.20	4.72	3.50	1.69	3.61	4.14	6.10	0.59	4.28	3.20	3.60	1.06	38.68
1897,	2.45	3.70	3.80	2.81	4.62	1.58	2.95	3.40	2.95	2.17	3.60	2.48	36.51
1898,	3.01	1.50	1.70	2.50	5.60	2.35	3.45	6.90	0.90	5.60	3.10	3.40	40.01
1899,	2.60	3.75	5.00	1.70	5.00	3.10	2.30	3.60	3.45	0.60	3.15	3.00	37.15
1900,	0.70	4.10	3.00	0.50	1.32	2.30	3.91	2.25	0.20	4.25	2.15	1.20	25.88
1901,	2.00	0.30	......	2.30	7.20	2.95	4.25	3.85	2.80	1.15	2.50	3.40	......
1902,	3.65	3.35	6.10	2.25	1.45	6.60	5.60	0.30	4.60	4.97	1.61	4.22	43.70
1903,	3.54	4.45	3.71	3.59	1.31	7.26	4.32	7.11	2.44	2.54	0.45	3.40	44.12
1904,	2.95	1.50	3.25	4.75	3.85	2.32	4.12	2.51	1.65	0.70	0.45	2.15	30.60
1905,	3.90	0.65	3.60	1.63	......	......	......	......	......	......	......	......	......
Means,	2.70	2.80	3.63	2.87	3.58	3.63	3.93	3.21	2.72	2.64	2.25	2.83	36.29

Mifflintown, Juniata Co.—(Elevation 445 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1903,	......	......	......	......	......	5.74	1.39	6.24	2.36	3.65	1.24	1.45	......
1904,	2.62	1.54	3.12	4.42	4.35	2.69	4.17	3.37	1.56	2.32	0.69	1.63	32.48
1905,	3.66	1.00	4.26	2.09	2.91	2.90	7.22	7.08	3.24	4.07	2.25	3.63	44.30
1906,	1.92	1.27	4.09	3.49	2.67	4.06	3.56	6.60	1.99	5.72	0.87	3.65	39.91
1907,	4.15	1.72	4.63	2.74	2.19	4.04	1.55	3.40	7.00	1.98	2.85	6.11	41.36
1908,	2.47	5.37	4.45	2.84	10.64	2.11	2.60	2.83	1.94	2.01	0.51	2.50	40.27
1909,	2.75	3.58	2.13	5.83	1.77	5.65	1.81	1.58	1.70	3.24	0.38	2.96	32.88
1910,	4.14	3.11	0.23	7.43	2.91	7.18	3.04	2.40	4.68	1.18	1.09	1.37	38.75
1911,	3.43	1.61	1.83	4.53	1.83	3.96	2.27	8.98	5.61	4.41	1.87	2.86	43.19
1912,	1.05	2.19	4.64	4.46	4.57	2.82	5.11	8.49	7.02	1.92	2.18	3.18	42.63
1913,	3.65	1.30	4.66	3.73	3.64	2.15	2.93	2.02	5.16	5.51	3.33	3.03	41.10
1914,	4.63	2.69	2.09	4.49	3.60	4.63	5.81	2.82	0.77	2.20	1.80	5.04	40.47
1915,	6.50	4.03	1.75	2.31	3.75	4.98	5.48	6.89	3.93	2.33	2.17	5.46	49.68
Means,	3.41	2.46	3.16	3.90	3.74	4.06	3.70	4.44	3.61	3.12	1.63	3.22	40.50

Milford, Pike Co.—(Elevation 455 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1903,	1.82	5.41	4.42	3.17	0.66	11.33	4.50	7.03	1.25	10.53	1.68	3.51	55.61
1904,	3.51	2.12	3.40	3.09	4.10	1.97	3.53	5.35	5.27	4.56	1.79	2.34	41.33
1905,	5.00	1.51	3.87	1.88	1.49	2.61	3.74	6.16	5.35	3.76	2.07	4.29	41.73
1906,	1.94	1.54	5.45	3.40	4.78	4.26	6.34	6.06	1.54	4.60	2.29	3.64	45.84
1907,	4.07	2.57	3.07	2.36	3.06	3.52	1.84	2.33	10.64	4.67	5.43	6.85	50.41
1908,	1.78	5.13	2.86	2.25	7.01	2.98	3.96	4.13	2.43	4.53	0.75	3.23	41.03
1909,	3.27	5.98	3.20	6.70	2.57	1.89	4.33	2.33	3.45	0.70	1.83	4.30	40.55
1910,	3.27	3.96	0.67	5.56	1.78	3.69	1.09	4.76	3.49	1.43	5.49	2.03	37.22
1911,	1.95	2.53	3.15	3.77	1.51	6.77	4.17	5.86	3.43	7.25	2.18	3.38	45.94
1912,	2.25	2.25	6.23	4.74	2.99	1.34	1.04	5.87	5.75	2.74	2.58	4.54	42.32
1913,	3.13	2.98	6.57	3.92	3.24	1.44	4.83	4.02	2.73	5.61	3.25	3.47	45.19
1914,	3.62	2.51	3.69	3.80	3.60	3.06	4.08	1.95	0.35	1.82	2.43	3.51	34.44
1915,	5.75	5.35	....	1.94	3.26	2.86	6.49	5.74	5.10	1.80	0.22	3.30	....
Means,	3.20	3.37	3.88	3.58	3.08	3.67	3.86	4.74	3.91	4.15	2.46	3.72	43.62

Milton, Northumberland Co.—(Elevation 480 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1879,	....	....	....	....	....	2.81	4.90	4.15	1.84	0.85	2.41	3.32	....
1880,	2.54	3.72	3.44	3.04	2.40	3.11	5.93	6.29	3.84	2.93	3.40	1.42	42.06
1881,	1.90	3.50	3.27	1.55	3.36	10.08	1.15	4.25	0.45	3.71	5.99	2.74	41.85
1882,	2.25	5.33	4.55	3.03	7.75	....	....	....	....	....	....	....	....

Mineral Point, Cambria Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1905,	0.61	1.21	4.30	2.61	4.06	7.76	8.31	4.81	3.22	4.88	3.14	3.99	48.39
1906,	3.33	1.05	4.33	2.10	2.30	4.83	3.30	7.03	0.89	2.48	2.01	4.83	38.47
1907,	6.66	1.87	7.83	2.32	3.39	5.48	3.70	2.50	4.30	1.55	3.85	3.53	46.48
1908,	3.40	3.92	....	....	....	3.74	2.36	3.75	0.76	0.00	0.78	3.81	22.52
1909,	2.88	5.58	4.68	6.14	1.74	4.24	0.50	1.86	1.52	3.82	0.81	4.68	38.45
1910,	7.35	2.83	1.28	2.43	4.52	2.98	2.66	3.20	4.05	1.70	4.55	2.20	39.75
1911,	4.38	3.00	3.77	4.32	....	3.42	2.12	6.57	....	....	....	....	....
Means,	4.05	2.78	4.36	3.32	3.20	4.64	3.28	4.25	2.45	2.32	2.44	3.84	40.97

Note: This record furnished by the Cambria Steel Company, Johnstown, Pa.

Montrose, Susquehanna Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	....	....	....	....	....	1.46	2.38	7.89	4.34	....	....	....	....
1903,	....	....	....	....	....	....	....	....	2.27	6.20	3.04	2.64	....
1904,	5.06	1.84	2.42	3.22	2.71	2.78	4.70	5.40	3.91	4.26	1.18	1.75	39.17
1905,	3.05	0.45	3.28	2.01	2.23	....	3.62	4.06	3.60	3.19	1.63	2.39	....
1906,	1.61	0.72	5.00	3.43	3.32	7.44	5.74	4.44	2.39	3.85	....	3.53	....
1907,	4.03	2.40	1.78	2.71	2.88	2.79	3.38	0.82	7.50	3.87	3.83	3.80	39.78
1908,	2.30	....	2.93	2.68	5.14	1.82	4.24	1.51	0.98	2.53	1.35	2.34	....
1909,	3.93	4.17	1.91	3.56	3.93	5.08	1.63	2.25	1.58	1.22	1.32	2.00	32.58
1910,	5.49	4.43	0.91	2.78	4.05	2.29	1.53	1.71	3.77	0.30	2.64	2.96	33.36
1911,	1.70	2.65	1.60	2.60	2.60	3.55	3.52	4.08	4.84	4.48	1.85	3.08	36.55
1912,	0.60	1.12	2.45	7.31	3.31	1.57	2.61	5.62	9.84	2.17	3.06	2.10	41.28
1913,	4.84	1.43	4.55	2.94	2.99	2.05	3.35	1.93	3.67	3.93	2.45	1.69	35.82
1914,	1.40	1.30	2.82	6.52	4.38	4.48	4.97	6.08	1.92	1.66	2.46	3.50	41.47
1915,	4.31	4.33	1.20	2.30	3.14	5.00	9.96	5.30	2.13	2.64	2.14	4.60	47.05
Means,	3.19	2.26	2.57	3.51	3.39	3.85	3.97	4.00	3.73	3.14	2.34	2.80	38.15

Moosic, Lackawanna Co.—(Spring Brook Intake, Lackawanna Co., 3 miles S. E. Moosic)—(Elevation 910 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1897,	1.01	1.64	2.61	4.64	6.42	1.70	5.54	2.65	1.73	1.30	2.51	2.65	34.40
1898,	1.81	1.20	2.97	2.60	4.46	2.50	1.57	5.60	2.98	3.70	3.39	2.51	35.29
1899,	2.27	3.90	3.02	1.79	1.63	3.03	3.49	4.33	3.48	1.10	2.48	3.23	33.75
1900,	2.41	3.86	1.97	1.36	3.14	5.45	3.51	1.35	0.85	2.46	2.68	2.32	31.86
1901,	0.85	0.49	3.52	3.48	7.16	2.35	3.31	7.52	2.86	1.11	2.80	6.94	42.09
1902,	2.01	3.54	2.61	1.61	0.82	3.79	4.34	2.74	6.15	4.97	0.59	4.72	37.89
1903,	1.93	3.31	4.16	2.90	1.21	8.39	4.47	7.16	1.45	5.89	1.77	2.55	45.19
1904,	2.10	1.02	2.37	2.38	1.14	2.59	4.98	4.71	2.03	3.78	1.29	1.53	29.92
1905,	4.33	1.04	3.40	1.67	1.51	2.38	3.12	4.16	3.92	3.52	1.48	2.55	33.08
1906,	1.44	2.51	5.60	4.54	2.72	6.41	4.67	1.94	2.54	4.16	1.92	2.11	40.57
1907,	3.51	0.93	1.39	1.23	1.53	4.07	1.95	2.64	7.19	3.32	4.23	4.24	36.22
1908,	1.84	3.79	3.57	2.56	5.27	3.13	2.88	2.66	2.68	2.96	0.96	2.27	34.56
1909,	2.11	3.58	3.01	6.36	4.13	5.37	2.32	1.50	1.73	0.83	1.77	2.94	35.65
1910,	4.40	3.33	0.78	4.83	2.90	2.85	2.67	3.47	3.13	1.12	4.66	1.63	34.44
1911,	2.53	2.11	2.23	2.91	1.55	6.66	3.78	7.10	3.50	4.06	2.27	2.31	41.00
1912,	1.02	1.72	4.61	4.37	1.55	1.50	0.45	4.10	8.65	2.00	3.35	3.36	36.68
1913,	3.22	1.48	5.48	4.44	2.70	3.65	4.21	1.87	4.12	4.27	3.07	2.34	40.85
1914,	2.01	1.64	2.63	4.05	3.68	3.69	6.77	3.53	1.09	1.44	1.28	3.12	34.93
1915,	4.12	3.46	0.74	2.22	3.56	3.11	3.96	6.70	0.96	1.10	1.48	3.00	34.40
Means,	2.36	2.34	2.98	3.15	3.00	3.82	3.58	3.99	3.21	2.80	2.29	2.96	36.48

Note: This record furnished by The Spring Brook Water Supply Company, Wilkes-Barre, Pa.

Moreland and Horsham, Montgomery Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1864,	....	....	....	....	....	2.40	4.47	2.93	5.66	2.30	4.97	2.59	....
1865,	3.05	5.50	4.99	2.11	6.15	5.13	6.00	2.98	4.65	4.25	3.65	3.30	51.76
1866,	1.30	5.10	1.15	2.73	4.15	5.00	1.90	5.25	8.32	4.55	2.43	2.62	44.49
1867,	1.10	1.95	3.94	1.38	6.67	12.67	3.16	14.80	1.71	5.75	2.30	1.30	56.62
1868,	2.20	1.80	3.01	3.94	7.81	7.57	3.58	4.83	8.40	1.67	6.35	2.10	58.25
1869,	2.63	3.25	4.57	2.12	4.90	5.90	2.42	1.30	4.30	6.49	4.50	5.45	48.23
1870,	3.81	3.35	3.53	6.98	8.43	4.25	6.21	4.13	2.92	6.41	1.30	1.50	52.82
1871,	3.30	3.50	6.64	1.95	4.85	8.33	6.65	6.63	1.80	4.25	3.78	0.70	52.39
1872,	1.03	0.40	2.25	2.30	2.52	4.25	7.40	11.89	3.00	4.55	3.70	0.67	43.96
1873,	3.50	3.70	2.70	4.60	3.10	2.85	4.70	9.23	3.15	7.75	4.97	....	....
Means,	2.44	3.27	3.64	3.12	5.39	5.82	4.62	6.44	4.37	4.80	3.78	2.24	49.83

Morrisville, Bucks Co.—(Elevation 34 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1825,	3.50	3.25	4.50	1.00	1.75	3.50	2.00	3.75	2.50	1.25	1.50	3.50	32.00
1826,	1.50	2.25	9.50	4.00	0.25	4.75	3.75	2.75	2.00	6.00	2.00	2.25	41.00
1827,	3.50	3.50	1.25	3.00	2.50	2.00	3.00	5.75	1.00	6.00	4.15	3.25	38.90
1828,	2.00	2.75	4.00	4.00	3.50	2.75	5.25	1.50	4.50	1.50	6.50	0.25	38.50
1829,	5.50	3.75	3.00	5.00	2.75	3.50	4.25	4.50	2.00	2.25	4.00	1.50	42.00
1830,	1.50	2.00	4.25	2.00	3.75	6.00	4.00	4.00	3.00	4.00	5.25	5.00	44.75
1831,	5.50	2.00	3.00	5.00	1.00	3.50	4.25	5.25	5.00	4.00	2.00	1.00	41.50
1832,	4.00	2.50	2.00	3.00	5.50	1.50	3.50	5.75	1.50	3.50	2.50	5.00	40.25
1833,	4.00	1.25	2.25	0.50	6.00	5.25	4.12	3.75	4.00	10.00	2.00	5.75	48.87
1834,	2.50	2.25	2.00	3.00	4.50	4.00	4.25	0.50	3.50	3.25	3.00	3.40	36.15
1835,	2.75	2.00	4.00	4.50	2.00	6.25	6.50	2.00	2.50	1.25	3.75	2.50	40.00
1836,	7.50	3.00	1.75	3.50	2.25	7.25	3.00	2.00	2.00	3.50	3.25	4.00	43.00
1837,	3.00	3.50	3.75	3.00	5.00	3.00	6.00	3.00	2.50	0.75	3.00	1.00	37.50
1838,	2.25	2.25	3.75	3.50	3.50	6.50	3.25	2.00	9.00	6.00	3.00	1.00	45.00
1839,	5.50	2.50	1.50	1.50	6.75	4.00	2.50	4.75	3.00	3.00	3.50	6.25	44.75
1840,	2.00	3.00	2.50	7.00	2.75	6.00	4.50	5.50	2.50	5.75	2.50	3.00	47.00
1841,	7.75	1.50	6.00	6.50	3.50	3.25	3.25	9.00	2.00	3.75	4.50	6.00	57.00

1843,	1.25	4.50	0.75	5.25	6.00	3.25	1.20	3.75	1.25	1.75	2.00	3.50	34.45
1843,	1.50	2.50	4.00	4.75	2.00	1.75	4.50	9.25	4.75	3.25	4.25	4.00	46.50
1844,	2.50	1.50	4.50	1.50	3.00	3.25	5.25	2.50	4.00	5.00	3.00	3.00	39.00
1845,	3.50	4.75	2.50	2.50	1.50	3.25	2.75	7.25	2.25	2.50	2.50	4.50	39.75
1846,	4.50	3.25	4.50	2.00	3.50	4.50	4.25	4.25	0.25	2.00	8.00	3.50	44.50
1850,	5.00	3.00	5.60	3.25	6.60	2.50	5.00	5.70	5.20	1.70	3.30	5.10	51.95
1851,	1.70	4.30	2.50	5.70	5.40	2.20	3.30	2.80	1.40	3.40	3.90	2.10	38.70
1852,	1.50	2.40	4.00	7.00	4.70	4.20	2.90	9.50	2.60	2.40	6.20	5.10	52.50
1854,	2.60	5.10	1.30	7.30	6.70	5.00	5.60	1.10	2.70	2.10	3.10	2.40	45.00
1855,	2.60	1.80	1.80	2.50	3.40	8.80	5.00	2.50	2.30	4.90	2.70	4.80	43.10
1856,	0.43	0.90	1.65	3.00	2.90	1.90	2.60	4.60	4.30	1.30	2.76	4.10	30.34
1857,	2.60	1.00	1.20	6.60	5.80	7.80	4.10	8.00	1.40	2.90	1.20	5.20	47.80
1858,	3.00	2.20	1.60	3.90	5.50	5.20	3.20	3.20	1.60	1.40	4.90	4.40	40.10
1859,	4.55	3.45	6.10	5.30	2.10	4.90	2.50	4.40	8.80	3.10	3.20	3.25	51.65
1860,	3.20	2.90	1.20	3.00	......	......	......	......	......	......	......	......	......
1861,	4.50	2.40	3.80	4.50	5.90	2.20	1.80	2.90	4.20	2.40	6.60	1.80	43.00
1862,	4.30	3.80	3.70	3.10	2.60	6.10	1.90	1.10	6.20	3.70	5.30	1.10	42.80
1863,	4.10	4.40	4.30	8.00	4.60	2.70	4.60	2.90	0.70	3.20	2.30	4.70	46.40
1864,	1.70	0.60	4.50	3.40	6.20	2.30	2.10	1.70	4.10	1.80	3.20	4.30	35.90
1865,	3.10	4.80	4.60	1.40	6.00	3.70	2.30	2.00	2.00	5.00	3.10	5.20	43.20
1866,	2.20	5.00	3.70	2.90	3.70	2.90	2.80	4.50	6.50	3.90	1.90	3.10	43.10
1867,	1.70	3.90	4.40	1.20	7.75	8.00	5.30	11.00	1.20	3.40	1.90	3.50	53.25
1868,	3.50	2.30	2.50	4.10	6.40	7.00	3.50	5.00	6.80	1.60	4.70	3.30	51.60
1869,	4.00	5.10	5.20	1.40	6.70	4.80	2.50	1.00	3.60	6.10	3.70	5.20	49.30
1870,	3.80	2.60	3.60	4.10	3.70	3.60	4.00	3.90	1.50	4.50	1.50	1.80	38.60
1871,	2.20	3.50	5.40	2.00	3.80	5.00	5.70	4.00	1.50	5.40	3.80	2.40	44.70
1872,	1.85	1.30	3.50	2.30	2.00	2.70	7.70	7.30	2.70	4.20	3.45	3.00	42.00
1873,	6.50	4.20	2.20	4.70	3.80	1.20	2.70	9.62	2.80	5.00	4.50	2.70	49.92
1874,	5.40	2.70	1.50	8.00	2.10	1.90	4.10	1.40	4.40	1.50	2.50	1.80	37.30
1875,	3.00	3.20	3.90	2.60	1.00	3.60	2.20	6.90	2.50	1.90	4.30	2.70	37.90
1876,	1.10	4.10	5.60	......	......	......	......	......	......	......	......	......	......
1878,	......	......	......	......	......	......	......	......	......	1.85	3.02	5.66	......
1879,	2.41	2.48	3.11	4.87	1.23	4.56	5.59	8.80	1.48	0.48	1.75	5.98	42.74
1880,	2.72	2.34	5.27	3.98	0.78	2.08	12.51	3.10	2.64	2.25	2.27	4.45	44.39
1881,	4.94	4.20	4.09	0.73	3.04	4.71	1.13	1.44	0.64	2.00	2.85	3.32	33.09
1882,	5.02	4.99	2.31	2.37	5.14	2.30	1.69	5.03	12.35	1.96	1.63	3.02	46.81
1883,	4.07	4.60	2.60	3.88	3.34	5.04	2.05	5.36	3.64	4.02	1.56	3.31	43.47
1884,	4.90	5.04	4.79	2.25	4.48	5.30	4.24	4.58	0.22	2.30	3.12	6.00	47.22
1885,	4.23	4.91	1.19	2.30	1.51	1.02	4.05	7.56	1.07	4.23	3.58	3.26	38.91
1886,	4.12	5.67	3.53	4.09	6.49	2.90	4.54	2.01	0.85	2.90	4.73	3.52	45.34
1887,	2.92	4.96	2.98	2.61	3.61	4.28	9.28	2.52	4.14	3.06	......	......	......
Means,	3.45	3.21	3.47	3.72	3.86	4.03	3.97	4.38	3.14	3.23	3.36	3.52	43.34

Mosgrove, Armstrong Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1913,	6.52	2.00	5.79	2.72	3.25	1.95	4.93	1.54	1.48	5.42	2.65	2.24	40.49
1914,	2.33	2.13	2.35	4.55	4.21	4.61	2.60	4.85	0.77	2.31	1.29	4.23	36.23
1915,	4.81	2.61	1.19	0.46	3.81	4.98	8.56	6.90	2.16	3.44	2.58	3.93	45.42

Mountain House, Fulton Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1909,	....	....	1.67	4.81	2.87	4.89	3.19	2.80	1.37	3.60	0.51	2.75	....
1910,	5.65	3.05	0.40	5.39	1.64	6.39	1.71	1.54	3.87	1.21	0.75	1.93	33.53
1911,	4.33	2.00	2.57	4.15	1.19	4.24	1.97	7.39	6.10	3.00	1.79	4.26	42.99
1912,	1.73	2.30	4.72	5.02	5.99	3.77	6.14	3.67	4.86	2.08	1.41	2.88	44.67
1913,	3.18	0.99	4.07	2.79	6.30	1.53	4.23	2.01	2.18	7.13	3.38	2.82	40.61
1914,	3.55	2.88	2.98	4.40	2.81	3.18	2.45	1.67	0.70	1.70	1.58	3.57	31.42
1915,	5.14	3.77	1.22	1.46	4.81	4.92	4.43	5.87	2.74	2.26	2.04	4.52	43.18
Means,	3.93	2.50	2.52	4.00	3.59	4.13	3.45	3.58	3.12	3.00	1.63	3.25	38.70

Mount Gretna, Lebanon Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1910,	....	....	....	6.26	3.15	5.94	2.27	1.66	4.78	1.89	1.89	2.07	....
1911,	2.86	2.13	3.50	3.51	1.21	3.40	2.06	10.23	3.94	3.73	2.98	3.72	43.36
1912,	1.88	2.49	6.53	4.75	2.55	8.62	5.18	2.85	4.06	2.63	2.87	4.74	44.18
1913,	3.46	2.09	6.90	5.72	2.78	0.81	2.09	4.58	3.61	7.47	2.25	4.26	46.02
1914,	4.63	2.93	1.84	4.69	2.50	4.52	4.38	6.65	0.48	1.58	2.15	5.46	41.21
1915,	6.82	5.31	1.67	2.76	3.66	5.93	4.58	11.06	4.52	3.36	2.09	4.52	56.28
Means,	3.81	2.99	4.11	4.61	2.64	4.04	3.43	6.17	3.56	3.44	2.87	4.13	45.30

Mount Joy, Lancaster Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1857,	....	....	....	....	....	....	....	3.74	1.75	1.85	2.22	....	....
1858,	1.35	1.49	0.65	3.88	10.23	8.08	1.74	3.43	2.09	2.51	3.81	5.10	44.36
1859,	4.79	1.91	....	4.66	2.50	1.87	2.90	3.50	11.25	0.86	....	4.02	....
1861,	5.50	2.30	6.50	4.12	4.70	1.17	2.92	7.68	4.63	4.72	4.25	1.60	49.88
1862,	5.45	1.96	4.95	3.87	0.40	8.35	2.73	0.70	0.75	2.50	2.05	....	....
1863,	4.05	3.15	4.70	5.30	4.65	3.45	3.70	....	4.65	3.10	3.80	4.10	....
1864,	2.15	0.75	2.40	3.55	6.15	2.15	1.90	2.96	4.05	1.35	2.35	4.00	[illegible].75
1865,	8.15	2.10	2.35	1.15	4.75	2.80	6.10	0.80	0.30	....	2.85	1.75	....
1866,	2.00	1.50	0.80	2.70	2.15	2.35	1.43	3.70	4.00	....	1.50	2.10	....
1867,	1.10	4.65	3.70	0.53	5.35	5.25	2.16	8.80	....	4.50	....	....	....
1872,	....	....	....	....	....	2.96	4.80	6.85	4.30	3.60	5.25	3.60	....
1873,	1.10	3.10	4.00	3.50	5.80	....	5.40	6.04	2.55	3.45	2.80	1.60	....

Mt. Carmel, Northumberland Co.—(No. 6 Reservoir, 2 1-2 Miles North of Mt. Carmel)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1909,	....	....	....	....	....	....	1.41	0.44	1.94	2.66	0.71	2.52	....
1910,	4.07	3.32	0.72	6.24	4.08	6.01	1.50	3.69	4.60	1.79	3.15	3.19	42.36
1911,	3.74	1.56	2.39	3.55	1.99	2.78	3.92	9.01	4.27	5.32	3.12	2.82	44.42
1912,	1.41	1.65	6.22	4.64	4.31	1.55	5.28	5.07	4.77	2.69	3.25	3.87	43.71
1913,	4.01	1.69	6.18	5.37	3.11	2.26	6.94	2.02	4.39	4.41	1.97	3.20	44.55
1914,	2.37	1.42	1.82	5.37	3.42	4.37	5.79	6.07	1.22	1.40	1.16	3.63	37.24
1915,	5.73	4.87	1.10	2.66	3.26	2.63	5.17	3.82	3.44	1.04	1.06	4.16	42.93
Means,	3.56	2.42	2.90	4.64	3.36	3.26	4.14	4.87	3.38	2.76	2.06	3.34	40.69

Note: Furnished by Roaring Creek Water Company, Shamokin, Pa.

Muncy Valley, Sullivan Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1909,	....	....	....	....	....	....	....	....	....	2.00	0.83	3.20	....
1910,	6.48	3.09	0.14	7.88	5.03	5.85	2.71	2.73	5.27	1.29	2.16	2.42	45.06
1911,	2.44	....	2.36	3.86	2.45	5.46	1.56	7.64	....	....	....	....	....
1913,	....	....	....	....	....	....	....	....	3.86	3.64	2.03	3.39	....
1914,	2.37	1.68	2.31	7.06	4.94	3.81	5.84	4.65	1.96	2.02	1.65	4.59	42.68
1915,	6.85	4.45	0.72	3.00	4.06	5.85	6.86	6.02	2.25	1.52	2.35	3.76	47.59

Murrysville, Westmoreland Co.—(Elevation 900 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	....	....	....	....	....	....	....	4.31	0.58	2.72	0.93	3.53	....
1915,	3.47	2.34	1.21	1.20	4.79	4.08	4.35	*4.30	....	....	....	....	....

Note: *Discontinued August 31, 1915. This station maintained and operated by Water Supply Commission of Pennsylvania.

Nazareth, Northampton Co.—(Elevation 530 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1856,	....	0.55	....	3.72	....	2.63	2.27	9.11	4.51	1.35	3.32	....	....
1857,	....	....	....	4.67	7.81	....	8.29	....	....	....	....	....	....
1859,	....	....	....	....	....	....	....	....	6.81	1.85	3.10	....	....
1861,	....	....	3.39	1.75	5.32	1.53	....	3.59	4.63	8.90	5.58	2.66	....
1862,	5.85	2.60	3.21	3.96	2.09	....	....	....	....	....	....	....	....

Neshaminy, Bucks Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1915,	4.93	4.36	0.81	2.41	4.01	3.68	6.32	7.67	0.86	3.50	1.42	3.62	43.59

New Bloomfield, Perry Co.—(Elevation 400 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	2.47	3.92	3.95	2.75	6.55	3.50	2.47	7.03	6.28	3.98	2.89	3.63	49.42
1889,	3.52	1.24	3.91	3.88	6.06	6.25	6.08	2.75	5.02	4.35	7.31	2.24	52.61
1890,	1.47	6.11	5.37	3.47	....	....	....	....	....	....	....	....	....

New Castle, Lawrence Co.—(Elevation 850 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1870,	5.60	3.20	2.60	2.60	5.00	4.90	7.50	6.90	1.90	2.40	2.20	1.50	46.30
1871,	2.45	1.30	1.80	1.30	2.60	4.30	5.60	0.30	0.40	1.70	2.70	1.60	26.05
1872,	1.15	0.65	0.95	1.00	2.70	2.10	5.40	2.20	3.70	4.40	0.95	2.70	27.90
1873,	2.10	0.70	3.20	1.40	2.10	5.50	3.20	2.60	2.20	4.40	2.20	5.00	34.60
1874,	4.30	3.70	3.30	3.30	1.20	2.10	6.50	1.30	2.40	0.60	3.00	1.50	33.00
1875,	1.96	1.10	2.10	3.10	1.80	4.40	8.20	5.00	2.30	2.70	2.70	3.00	38.30
1876,	3.90	4.00	3.00	1.10	1.90	1.50	6.00	1.60	7.00	1.10	2.00	2.30	35.40
1877,	2.20	0.50	4.30	1.60	0.90	4.10	4.10	2.40	2.20	2.00	3.70	1.30	29.30
1878,	3.30	1.50	2.00	2.90	1.60	4.60	3.70	0.80	10.00	2.50	2.80	3.30	39.00
1879,	1.80	3.10	3.70	1.00	2.00	4.50	6.70	4.00	1.60	0.60	3.00	4.20	35.20
1880,	2.40	2.10	3.20	3.30	2.20	5.10	3.10	4.50	1.70	1.80	2.40	1.70	33.60
1881,	2.20	2.70	2.90	0.90	1.80	8.40	2.50	0.20	1.50	3.40	2.70	3.00	32.20
1882,	2.70	2.90	2.30	0.70	6.00	4.00	3.50	....	....	....	....	....	....
1888,	2.77	1.83	2.01	2.95	2.73	3.25	4.90	6.38	2.84	3.99	3.99	2.45	40.09
1889,	3.17	3.33	2.73	6.06	3.20	6.50	....	2.28	4.01	1.88	2.89	3.64	....
1890,	4.54	6.39	4.29	3.82	7.25	2.65	1.55	3.69	7.48	6.26	2.48	2.13	52.53
1891,	2.88	4.64	3.32	2.36	2.46	3.02	4.88	1.51	3.34	0.84	3.65	2.62	35.42
1892,	2.75	2.56	2.26	1.95	6.31	7.08	2.50	3.31	2.53	0.57	1.61	1.02	34.45
1893,	2.60	4.65	2.11	3.09	6.23	4.38	6.08	3.37	2.07	4.59	1.39	2.24	42.80
1894,	1.61	1.76	1.47	2.94	....	....	....	....	....	....	....	....	....
1904,	2.60	2.34	4.15	5.01	4.92	3.58	4.22	6.35	1.41	1.77	0.76	2.29	39.40
1905,	2.46	2.30	3.61	2.33	4.12	4.47	6.54	4.54	3.16	3.53	2.20	2.38	41.64
1906,	1.67	1.15	3.06	2.07	2.60	....	....	3.91	....	3.24	1.54	1.69	....
1907,	....	1.11	2.58	2.91	2.14	4.06	3.03	1.80	3.45	2.18	1.70	1.90	....
1908,	2.63	2.70	4.45	2.20	6.05	2.45	3.65	2.70	0.95	1.60	1.00	2.10	31.48
1909,	4.25	4.35	2.35	5.25	3.00	5.50	1.96	1.20	0.80	0.95	1.50	2.14	32.24
1910,	7.50	4.20	0.00	3.50	3.10	2.95	2.36	0.55	6.75	1.85	1.10	2.45	36.30
1911,	2.60	....	....	3.80	1.00	5.60	0.90	3.40	5.80	6.45	....	2.57	....
1912,	2.95	1.02	2.05	....	2.06	....	6.70	6.90	4.45	2.25	0.85	....	....
1913,	4.80	2.10	5.10	....	....	....	....	....	....	....	....	....	....
1914,	2.42	2.06	1.88	5.82	3.93	4.47	1.68	3.71	1.47	2.77	1.83	3.69	35.72
1915,	4.77	2.02	1.63	0.93	2.29	4.56	5.07	5.62	1.91	1.78	2.14	3.52	36.28
Means,	3.06	2.54	2.72	2.71	3.11	4.29	4.29	3.19	3.19	2.56	2.18	2.50	36.34

Note: 1904-1912 station located at Skidmore, 5 miles northeast from New Castle.

New Geneva, Fayette Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1877,	....	....	....	....	....	....	....	3.84	3.99	4.53	4.47	1.28	....
1878,	4.65	1.28	2.61	2.46	2.81	3.69	4.42	3.87	4.03	3.55	6.03	4.67	43.07
1879,	2.48	1.94	5.25	0.80	1.83	3.75	6.88	3.83	1.46	1.14	2.08	4.24	35.68
1880,	5.66	4.05	4.14	3.37	2.12	7.69	3.40	4.63	4.62	3.17	1.72	3.50	48.07
1881,	3.00	3.44	2.54	1.97	3.09	7.43	5.28	d0.66	1.17	4.11	3.14	6.16	41.99
1882,	6.48	5.23	6.41	2.72	4.23	3.01	3.01	6.77	5.02	2.83	1.81	1.46	48.97
1883,	3.10	3.72	2.04	4.10	....	....	....	....	....	....	....	....	....
1884,	5.14	4.48	4.97	1.66	3.56	1.09	7.70	1.35	1.27	0.67	1.66	3.81	37.36
1885,	5.74	2.05	1.56	3.25	1.76	2.89	4.51	6.79	1.22	4.74	2.26	1.38	38.15
1886,	2.98	1.55	2.46	2.92	5.58	5.51	3.61	7.39	3.81	0.89	2.61	2.62	41.93
1887,	1.73	4.96	0.74	3.33	3.66	4.17	1.63	1.99	2.65	0.84	1.30	1.09	28.09
1888,	6.29	1.63	3.89	2.18	3.95	....	....	....	....	....	....	....	....
Means,	4.30	3.12	3.33	2.61	3.26	4.36	4.49	4.11	2.92	2.65	2.61	3.02	40.78

New Germantown, Perry Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1903,	....	....	....	....	....	....	....	5.53	3.42	4.12	1.17	1.93	....
1904,	2.54	1.76	3.16	2.69	3.03	4.09	5.69	4.45	1.63	2.35	0.85	2.09	35.32
1905,	3.98	0.96	3.92	2.05	4.08	3.96	6.06	5.65	7.30	3.55	2.22	4.40	48.13
1906,	1.87	1.21	3.73	2.86	2.73	9.13	3.25	6.57	1.11	7.64	0.85	4.21	45.09
1907,	3.70	1.60	3.70	3.43	2.55	5.50	3.77	2.80	4.63	2.23	3.66	4.28	41.33
1908,	2.10	4.65	1.77	2.53	10.09	2.60	4.62	2.43	4.06	2.74	0.40	2.19	40.17
1909,	2.77	3.02	1.74	4.26	2.66	3.83	1.31	3.87	2.44	....	0.40	3.18	....
1910,	4.69	2.77	0.24	7.31	2.88	7.44	1.35	1.53	4.37	2.07	1.62	1.95	38.12
1911,	2.86	1.61	....	....	1.60	3.75	4.01	6.48	5.49	3.77	2.30	3.34	....
1912,	1.22	2.05	4.86	....	4.21	3.31	2.77	3.15	6.21	0.98	4.27	2.18	....
1913,	4.79	1.91	2.78	1.46	4.79	0.53	1.32	1.90	2.47	6.00	....	....	....
Means,	3.05	2.16	2.88	3.45	3.86	4.44	3.42	3.90	3.92	3.53	1.75	2.97	39.38

Newtown, Bucks Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1839, ...	....	....	2.50	3.20	7.50	3.52	....	6.80	5.25	2.15	4.16	7.17	....
1840, ...	1.75	3.38	3.30	7.78	3.91	6.58	3.98	5.55	3.12	6.20	3.76	4.26	58.57
1841, ...	7.04	1.31	4.95	5.47	2.89	5.10	4.40	10.69	1.95	3.15	3.77	6.63	57.34
1842, ...	0.95	4.43	2.70	5.17	4.17	3.31	6.92	4.43	1.51	1.83	3.21	3.22	41.85
1843, ...	1.43	2.45	4.92	4.39	1.77	2.41	....	....	....	....	....	....	....

Nisbet, Lycoming Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889, ...	....	1.80	1.45	3.30	4.80	6.20	5.10	2.80	3.40	4.30	7.70	4.00	....
1890, ...	3.50	3.70	4.30	4.00	6.20	3.60	3.80	4.30	3.90	6.40	1.30	4.25	49.25
1891, ...	4.00	5.20	5.20	2.00	1.20	5.00	4.70	6.50	2.40	2.60	3.00	4.80	46.50
1896, ...	1.77	4.53	2.52	0.90	....	....	....	....	....	....	....	....	....
1899, ...	1.76	3.22	3.23	1.36	3.00	6.28	2.11	4.08	3.92	0.38	4.87	3.96	38.17
1900, ...	1.10	3.95	3.25	0.84	1.23	....	....	....	....	....	....	....	....

Norristown, Montgomery Co.

Year.	Jan.	Feb.	Mar	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1854, ...	3.34	6.25	1.75	6.45	4.36	4.34	2.77	2.15	3.06	1.96	3.62	3.74	43.79
1855, ...	2.60	3.10	1.85	1.97	4.37	7.56	7.58	1.34	5.23	4.94	2.18	5.43	48.14
1856, ...	3.65	1.26	0.45	3.59	3.30	1.16	1.50	7.09	5.82	0.98	3.07	4.17	38.04
1857, ...	3.06	0.89	1.46	6.84	6.77	6.00	2.72	6.77	1.71	3.34	1.69	6.00	47.55
1858, ...	2.85	2.78	1.17	4.11	6.62	4.61	2.87	2.04	1.32	1.80	4.70	4.46	39.33
1859, ...	4.80	3.04	6.14	5.08	1.34	3.80	2.24	2.97	7.74	2.63	3.58	3.62	46.95
1861, ...	4.56	2.44	3.78	4.52	5.89	2.89	2.16	3.81	5.09	4.12	5.75	1.94	47.06
1862, ...	5.08	3.70	4.52	4.24	1.61	6.13	4.01	0.57	4.71	4.05	4.63	1.79	45.03
1863, ...	....	4.88	....	7.08	6.20	3.23	6.91	....	....	....	....	....	....

North Abington, Luzerne Co.—(Elevation 1,183 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1868, ...	....	....	....	3.92	5.85	2.75	1.06	5.30	4.50	1.02	4.22	1.85	....
1869, ...	5.20	2.70	3.43	2.57	4.15	2.92	2.46	2.10	3.65	6.97	2.41	4.83	43.98
1870, ...	2.88	4.20	3.67	3.30	4.00	4.92	5.28	1.82	2.15	4.00	1.83	1.63	39.98
1871, ...	2.85	2.40	6.87	2.20	2.45	5.20	13.05	6.68	0.80	2.85	2.93	1.27	49.55
1872, ...	1.08	1.82	1.38	1.95	3.20	4.89	5.93	6.66	2.65	4.32	2.70	3.93	39.52
1873, ...	4.38	2.45	3.60	4.07	3.03	3.05	6.00	2.65	2.25	5.90	2.33	2.85	42.46
1874, ...	3.20	2.78	2.25	5.30	1.95	5.31	6.25	1.90	2.86	2.30	4.25	1.15	39.49
Means, ...	3.36	2.72	3.55	3.31	3.52	4.16	5.72	3.87	2.74	3.91	2.96	2.36	42.21

Northumberland, Northumberland Co.—(Elevation 450 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1839,	1.54	1.99	1.15	4.63	3.39	4.85	7.34	2.52	2.82	1.49	2.39	3.18	37.29
1840,	1.44	2.64	6.48	3.26	2.73	4.71	1.94	5.01	1.28	3.96	2.95	....	....
1841,	5.24	1.27	3.77	4.42	4.28	2.69	2.55	3.86	2.90	0.83	2.41	5.51	39.73

North Whitehall and Egypt, Lehigh Co.—(Elevations 400 and 450 feet respectively)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1874,	....	3.00	1.50	4.95	2.05	3.70	2.85	3.35	3.00	4.08	3.15	2.57	....
1875,	1.80	1.70	4.45	1.35	1.00	2.07	1.15	8.55	1.90	4.35	....	1.95	....
1876,	0.70	3.88	4.80	0.40	2.45	2.00	3.60	1.30	6.60	1.35	4.50	1.50	32.98
1877,	1.85	1.35	5.60	2.70	1.40	5.70	5.60	2.60	3.50	6.05	6.80	1.25	44.40
1878,	5.35	2.20	3.70	3.39	4.58	2.62	5.47	2.50	6.06	3.00	2.10	3.60	44.41
1879,	2.50	1.95	3.35	3.29	1.80	7.25	1.90	5.75	2.50	1.10	1.60	6.10	39.00
1880,	4.45	3.85	2.00	3.00	1.70	5.20	4.85	1.15	1.87	1.90	3.55	1.25	34.77
1881,	2.90	4.12	5.06	0.80	....	....	....	....	....	....	....	....	....
Means,	2.88	2.79	3.52	2.28	2.47	3.67	3.89	4.21	3.52	3.44	3.45	2.82	38.92

Note: A few scattering months' records are available from 1860 to 1873 inclusive, but so few as to have no value. Means for all are given.

Oil City, Venango Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1877,	2.55	1.20	5.09	1.03	0.64	6.51	3.43	1.81	2.99	3.20	5.90	2.22	36.57
1878,	4.58	2.97	3.17	2.87	4.40	4.44	5.53	2.65	6.34	2.45	4.67	4.78	48.85
1879,	4.42	4.58	3.94	2.88	1.97	2.93	3.88	1.90	2.97	3.61	6.22	5.82	45.12
1880,	4.55	2.80	2.25	4.55	2.82	4.62	1.73	2.68	2.68	3.40	2.50	2.30	36.88
1881,	4.78	4.33	2.80	2.29	3.53	9.10	1.43	0.72	2.33	4.84	4.84	5.60	46.59
1882,	3.61	4.53	3.72	2.53	6.09	5.23	3.27	4.97	6.07	2.17	2.41	4.10	48.70
1883,	6.47	6.06	4.74	....	....	....	....	....	....	....	....	....	....
1887,	1.40	7.04	1.27	2.15	2.22	....	5.53	4.61	2.24	3.77	2.56	1.76	....
1888,	4.57	0.79	2.30	3.24	1.30	2.58	1.24	0.71	1.29	0.54	2.98	1.26	22.80
1889,	1.81	0.29	1.50	3.98	3.85	7.04	4.30	1.65	3.43	3.17	2.12	1.63	34.77
1890,	1.60	2.46	2.75	1.32	8.50	4.91	2.34	5.56	7.31	3.97	2.58	1.96	45.16
1891,	2.16	5.24	3.23	1.91	1.08	5.13	8.63	2.59	1.50	1.70	2.85	2.18	38.20
1892,	1.32	2.07	1.32	0.78	7.56	4.07	3.83	3.45	2.74	1.14	2.84	0.95	32.07
1893,	3.39	8.11	2.92	4.92	6.15	3.99	4.52	3.04	2.39	4.02	1.99	4.63	49.97
1894,	3.48	2.94	1.90	3.17	5.04	1.62	1.95	0.41	6.51	2.43	3.22	2.65	34.32
1895,	4.63	1.49	1.64	2.68	4.22	2.58	3.65	3.09	5.15	1.24	5.11	5.32	40.80
1896,	1.66	3.56	3.18	2.96	2.73	6.88	6.69	2.16	4.40	2.15	2.50	2.10	40.97
1897,	2.59	2.91	5.36	3.54	4.12	4.05	7.97	5.07	1.53	0.37	6.37	3.63	47.51
1898,	5.32	2.53	5.74	2.13	4.64	4.56	4.45	6.73	2.11	5.18	4.33	2.90	50.62
1899,	2.57	2.61	4.63	1.58	5.14	3.18	5.39	1.28	4.47	1.72	2.31	4.85	39.73
1900,	2.77	3.58	3.89	1.40	1.77	3.81	6.39	2.65	2.96	1.73	5.22	1.63	37.83
1901,	2.55	1.76	4.34	5.99	5.14	5.37	3.42	4.11	6.61	0.39	3.96	4.31	47.95
1902,	1.88	1.63	3.12	2.96	3.65	7.24	10.66	2.02	3.06	2.74	1.78	4.80	45.54
1903,	3.82	5.07	5.06	3.44	2.63	7.08	7.04	4.32	2.04	2.93	2.67	2.82	48.90
1904,	5.45	3.51	6.10	4.50	4.39	2.30	3.42	4.03	2.66	1.64	0.92	2.80	41.71
1905,	3.46	2.64	3.49	....	....	....	....	....	....	....	....	....	....
Means,	3.36	3.34	3.44	2.87	3.90	4.75	4.61	3.01	3.57	2.52	3.41	3.21	41.99

Ottsville, Bucks Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	4.30	2.67	4.42	4.64	5.85	7.58	13.19	5.13	7.38	5.09	8.87	1.97	71.09
1890,	2.70	4.61	5.69	2.41	7.29	5.12	6.90	5.37	2.99	5.82	1.07	2.37	52.34
1891,	6.76	4.02	4.54	1.70	3.01	2.81	8.28	7.85	1.34	3.60	1.92	6.37	51.20
1892,	5.06	1.11	3.83	1.83	5.44	2.90	*4.50	2.40	2.67	0.48	6.58	1.79	38.89
1893,	2.70	4.90	2.67	4.80	4.85	3.92	1.83	7.46	3.04	3.08	4.19	3.07	46.51
1894,	1.78	3.59	1.56	2.23	12.92	2.49	2.41	1.93	8.27	4.95	3.14	4.78	50.06
1895,	3.93	0.88	3.30	4.99	2.73	3.58	3.61	3.98	0.59	4.10	2.03	3.53	37.25
1896,	0.87	7.41	4.96	1.41	3.85	3.36	9.69	0.45	6.95	2.56	4.17	1.89	47.56
1897,	3.44	3.03	2.52	3.28	7.81	5.56	6.82	4.87	1.88	1.54	4.80	4.71	49.25
1898,	4.32	3.20	2.83	4.46	6.27	0.75	2.15	5.70	2.09	5.25	7.25	3.49	47.76
1899,	2.32	5.46	5.56	1.86	2.21	1.70	3.13	3.51	5.13	*1.56	2.37	1.97	*36.78
1900,	*3.67	*5.11	*3.18	*2.14	*4.67	*4.10	*5.85	*3.56	*2.42	*2.62	*2.30	*2.37	*41.99
1901,	2.68	1.37	4.54	4.86	4.88	2.03	3.49	7.29	3.33	1.57	1.93	8.33	46.30
1902,	3.20	5.21	3.62	3.10	1.61	5.72	4.53	1.37	7.28	5.38	1.61	7.49	50.12
1903,	3.05	5.11	3.98	4.11	1.01	7.86	8.11	5.08	2.47	6.80	1.65	4.64	53.87
1904,	3.51	2.32	3.11	2.63	4.21	4.84	5.37	5.69	6.02	4.50	1.94	2.47	46.61
1905,	4.76	2.26	3.80	2.99	0.91	2.19	4.39	7.43	4.55	3.83	2.97	2.19	42.26
1906,	2.30	2.36	5.02	3.45	3.94	4.84	4.82	8.29	1.23	4.93	2.79	4.45	43.42
1907,	3.48	2.66	3.65	3.25	2.80	4.67	3.85	3.82	10.04	4.49	5.36	5.15	53.22
1908,	3.75	5.68	3.22	2.16	7.48	2.61	3.74	4.28	2.01	3.34	0.76	2.26	41.59
1909,	3.37	5.51	3.29	5.27	2.96	3.70	2.63	1.72	1.87	1.36	3.97	3.96	39.61
1910,	3.52	3.35	0.93	6.57	2.57	3.97	0.62	5.60	4.06	1.96	3.61	1.82	38.58
1911,	3.17	2.13	3.01	3.43	2.66	4.39	6.62	7.16	3.08	5.63	4.55	3.75	49.56
1912,	1.82	2.02	7.86	3.24	2.52	2.70	3.23	4.47	5.20	3.53	4.21	4.41	45.21
1913,	3.15	2.26	5.38	7.84	2.76	2.02	4.19	3.15	4.26	7.15	3.85	3.11	49.12
Means,	3.30	3.53	3.86	3.56	4.29	3.82	4.96	4.50	4.00	3.80	3.53	3.65	46.80

Note: *Interpolated.

Parkers Landing, Armstrong Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1885,	6.49	1.22	0.70	3.00	4.56	4.20	7.40	9.26	2.78	4.47	2.11	1.90	48.09
1886,	2.60	1.68	2.14	4.12	1.34	3.68	2.86	2.01	4.06	0.68	4.43	2.92	32.52
1887,	1.50	7.43	2.08	2.71	2.42	3.04	3.80	3.41	2.13	0.94	2.61	1.18	33.25
1888,	5.20	1.76	2.09	2.19	5.45	......	......	......	......	8.22	3.53	1.76	......
1889,	3.07	1.88	2.03	2.92	1.78	4.42	5.24	3.06	3.79	3.28	4.00	4.06	39.53
1890,	4.96	5.33	4.24	4.55	8.44	2.08	1.96	5.92	6.68	7.04	2.18	3.91	57.29
1891,	2.49	6.04	3.73	2.29	1.62	7.07	7.38	3.76	2.20	1.64	3.15	3.87	45.24
1892,	3.47	2.11	3.93	2.78	9.06	5.35	2.41	2.73	3.97	0.85	3.33	1.63	41.62
1893,	2.70	7.80	3.18	5.40	6.28	6.41	2.68	4.58	2.53	4.38	2.47	4.09	51.50
1894,	3.16	2.72	2.09	4.35	4.75	3.63	3.30	1.10	9.82	2.74	2.64	3.54	43.84
1895,	4.16	0.84	2.20	2.95	2.33	3.76	4.54	2.97	2.77	0.75	4.00	4.30	35.57
1896,	1.62	3.16	3.65	2.04	3.10	4.11	6.99	5.01	4.24	2.21	2.52	1.68	40.33
1897,	2.24	3.64	4.95	3.42	3.41	3.69	7.23	3.82	1.39	0.77	5.39	3.38	43.33
1898,	5.50	2.52	7.17	1.99	3.92	5.89	2.13	6.36	1.23	5.05	3.18	1.99	46.93
1899,	2.03	1.73	3.92	1.54	4.49	5.58	6.18	0.86	4.18	1.64	3.20	4.06	39.41
1900,	2.67	3.88	4.35	1.51	3.52	4.57	5.17	3.30	1.63	2.24	4.20	1.37	38.41
1901,	2.75	1.02	4.66	7.57	5.25	4.57	2.39	7.88	4.32	0.75	4.53	4.86	50.55
1902,	2.26	1.50	3.22	3.30	2.87	6.14	7.08	2.24	1.82	3.54	1.35	5.56	40.88
1903,	3.38	5.16	5.52	3.40	3.02	6.28	5.22	4.80	2.62	2.48	3.92	1.80	47.60
1904,	3.84	3.10	6.08	6.42	3.40	4.02	3.72	3.96	1.24	2.18	0.78	3.12	41.86
1905,	2.92	1.54	2.94	2.48	3.80	5.02	7.42	5.10	4.22	4.02	2.56	3.84	45.86
1906,	2.72	0.64	3.00	2.22	3.22	5.04	2.94	6.90	4.26	3.64	2.12	3.48	40.18
1907,	4.10	1.54	5.76	3.38	2.95	7.24	4.78	1.28	3.40	2.62	2.33	2.62	42.30
1908,	2.86	5.16	5.88	4.50	6.52	2.70	4.90	2.88	0.82	1.06	1.06	3.74	41.08
1909,	4.18	5.52	4.62	7.28	3.00	5.64	2.96	1.82	1.94	2.56	1.60	2.84	43.96
1910,	6.08	4.64	0.24	3.10	3.14	1.80	2.94	2.16	6.08	2.04	3.18	3.56	38.96
1911,	3.76	3.42	3.37	4.12	0.38	4.45	1.84	8.57	7.68	6.78	3.97	4.88	53.22
1912,	2.09	2.40	4.30	4.80	2.40	2.34	7.38	7.00	4.07	2.73	1.34	3.70	44.56
1913,	7.36	1.91	7.20	2.10	2.55	2.69	4.51	1.69	1.24	4.76	3.00	2.41	41.42
1914,	3.22	2.91	2.04	6.89	4.37	3.92	1.86	4.01	1.74	3.14	1.56	4.56	39.22
1915,	3.90	3.77	1.29	1.13	3.03	3.01	5.14	4.40	3.39	2.27	2.20	3.18	36.71
Means,	3.53	3.17	3.62	3.53	3.69	4.41	4.48	4.09	3.40	2.79	2.85	3.22	42.78

Paupack, Pike Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1912,	*1.99	2.24	4.39	4.60	2.90	1.52	1.45	5.09	6.31	3.90	2.37	2.41	39.67
1913,	2.81	1.66	4.56	4.18	2.88	1.75	2.72	1.22	2.75	4.16	4.06	2.97	35.72
1914,	2.01	2.81	2.36	4.36	3.65	3.99	5.24	3.31	0.86	1.75	1.53	4.79	36.46
1915,	5.20	3.93	0.93	2.60	4.26	2.77	5.41	8.62	4.21	1.66	2.69	4.17	46.45

Notes: *Mean of Wilsonville, Pocono Lake and Milford. This record furnished by L. B. Stillwell, Consulting Engineers, New York City.

Penn Line, Crawford Co.—(Elevation 1,030 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	3.68	1.99	3.19	4.99	4.93	2.58	4.64	4.38	0.97	3.41	2.23	3.81	40.79
1915,	2.86	3.15	1.11	1.20	4.29	3.03	4.87	6.50	3.07	2.36	2.95	3.33	38.72

Note: This station located at Padanaram, Ohio, Jan. to Nov. 1914, inclusive. Maintained and operated by Water Supply Commission of Pennsylvania.

Petersburg, Huntingdon Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	....	....	....	3.90	6.85	3.10	5.47	3.12	3.57	3.29	7.16	2.31	....
1890,	2.65	4.98	3.83	4.11	6.96	3.37	3.03	4.58	2.85	5.59	1.38	3.91	46.64

Philadelphia, Philadelphia Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1819,	....	....	....	....	....	....	0.74	3.86	2.44	0.94	1.00	1.46	....
1820,	3.00	2.55	5.01	3.00	6.56	1.88	6.50	3.64	1.95	8.94	3.12	3.25	49.40
1821,	0.48	4.82	0.57	3.05	5.93	2.60	1.84	0.41	5.74	3.24	4.65	2.84	36.16
1822,	1.70	2.90	2.20	2.16	2.17	1.44	3.80	1.38	5.45	1.24	5.00	1.25	30.64
1823,	3.38	3.86	6.57	1.77	1.60	0.87	6.12	4.68	3.46	2.02	2.47	7.37	44.47
1824,	3.67	3.94	2.63	4.54	1.59	6.09	8.80	6.39	6.10	1.53	2.49	2.11	49.88
1825,	0.84	3.26	4.63	0.83	1.72	3.69	2.06	3.70	2.61	1.25	1.36	3.72	29.67
1826,	1.11	2.13	5.80	3.87	0.19	4.66	3.68	2.75	2.00	5.83	1.85	1.28	35.15
1827,	2.86	3.55	1.23	2.83	2.60	2.09	2.97	5.75	0.79	5.91	4.76	3.26	38.50
1828,	2.05	2.75	3.35	3.82	3.49	2.69	5.33	1.51	4.62	1.39	6.71	0.26	37.97
1829,	5.37	3.75	3.57	4.99	2.68	3.44	4.35	4.61	2.01	2.30	3.97	1.51	41.85
1830,	1.63	2.06	4.12	1.82	3.75	5.99	4.07	3.87	2.93	4.31	6.35	5.18	45.08
1831,	6.22	2.44	2.97	5.20	1.07	3.56	4.17	6.39	5.33	4.51	1.88	1.20	43.94
1832,	4.58	2.66	1.90	2.98	5.04	1.55	2.62	5.69	1.40	3.41	2.59	5.09	39.51
1833,	3.97	1.21	2.22	0.70	5.88	5.28	4.15	3.39	3.82	10.06	2.18	5.67	48.55
1834,	2.49	2.22	2.02	2.83	3.52	3.99	4.35	0.62	3.57	3.29	3.01	2.33	34.24
1835,	2.75	1.81	3.83	4.33	1.99	6.27	6.55	2.05	2.63	1.22	3.19	2.68	39.30
1836,	7.62	2.99	1.75	3.47	2.28	7.31	2.91	1.97	1.82	3.59	3.34	3.61	42.66
1837,	2.50	3.58	3.76	2.83	4.86	2.83	5.89	4.06	2.28	0.66	3.28	2.56	39.04
1838,	2.30	2.19	3.17	8.59	3.56	6.60	3.38	2.78	9.52	4.90	3.35	1.06	45.81
1839,	5.04	3.42	1.51	1.51	6.07	3.92	2.53	4.64	2.92	2.83	3.10	6.26	48.74
1840,	1.84	3.01	2.63	6.83	2.69	5.95	4.54	5.55	2.50	5.73	2.49	3.65	47.41
1841,	7.84	1.39	5.82	6.45	3.27	3.11	3.28	9.10	1.90	3.20	4.23	5.93	55.50
1842,	1.36	4.26	2.84	5.31	5.86	3.19	11.80	3.79	1.27	1.71	3.49	3.66	48.54
1843,	1.44	2.54	4.42	4.72	2.06	1.69	4.51	9.26	4.86	3.22	4.15	4.04	46.93
1844,	4.05	1.47	4.43	1.85	3.09	3.35	5.28	2.40	4.03	5.03	2.95	2.75	40.16
1845,	3.76	4.74	2.42	2.58	1.60	3.72	2.96	7.30	2.16	2.53	2.50	3.96	40.23
1846,	4.62	3.33	4.60	2.11	3.45	3.30	4.60	4.27	0.25	2.45	7.97	3.44	44.40
1847,	4.73	4.57	4.70	0.59	1.57	3.31	2.76	3.18	8.07	3.00	2.84	5.79	45.11
1848,	2.03	1.44	2.75	1.54	4.90	4.43	3.28	1.72	1.81	3.75	2.34	5.01	35.00
1849,	0.73	2.61	5.47	1.75	4.00	2.30	2.93	6.97	1.41	5.60	2.60	5.84	42.11
1850,	4.77	2.87	4.75	2.67	6.50	2.03	5.97	8.33	7.73	1.09	3.33	4.52	54.56
1851,	1.23	3.11	3.47	4.56	4.82	3.44	2.52	2.56	1.13	3.03	3.35	2.28	35.50
1852,	2.01	2.71	4.27	6.45	3.03	4.03	4.06	4.40	1.29	2.27	6.06	5.17	45.73
1853,	1.85	4.44	2.46	3.84	5.17	1.00	6.30	3.09	4.46	3.47	2.32	2.17	40.67
1854,	2.33	4.21	1.62	7.75	6.94	2.39	3.02	0.84	3.80	1.55	2.83	2.91	40.19
1855,	2.34	2.35	1.68	2.06	2.96	7.96	6.49	2.79	4.00	4.11	2.04	5.43	44.10
1856,	4.54	1.24	2.23	3.52	2.60	1.99	1.51	6.00	4.01	1.30	2.07	2.94	33.95
1857,	3.53	0.79	1.83	6.78	5.55	7.50	3.92	7.59	1.11	2.69	1.45	5.55	48.29
1858,	2.59	2.29	1.09	4.64	5.02	4.49	1.35	4.94	1.49	1.84	5.61	4.50	39.85
1859,	6.68	3.66	6.98	5.61	2.25	6.01	4.07	4.73	7.68	3.13	3.82	3.49	58.11
1860,	3.23	2.76	1.42	3.80	3.82	2.88	0.90	8.46	2.85	4.52	6.13	3.31	44.17
1861,	5.25	2.07	3.92	3.71	6.64	3.88	2.56	3.14	4.40	3.80	4.87	3.09	46.33
1862,	4.79	4.64	3.56	4.16	2.31	6.97	2.47	0.93	3.98	4.77	4.79	1.65	45.01
1863,	4.72	4.68	5.89	7.02	4.51	4.25	6.01	1.45	0.88	2.46	2.70	4.63	49.20

Philadelphia, Philadelphia Co.—Continued

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1864,	1.71	0.55	5.17	3.80	8.68	2.35	3.77	1.92	7.16	1.82	3.93	5.15	46.01
1865,	3.61	5.83	4.71	2.83	7.21	4.75	2.97	3.77	7.96	3.95	3.96	5.61	56.26
1866,	3.15	6.61	2.15	2.93	4.68	2.96	2.52	2.18	8.71	4.15	1.76	3.47	45.27
1867,	1.76	3.89	5.47	1.81	7.32	11.03	2.39	15.82	1.72	4.32	2.94	2.73	61.20
1868,	3.62	2.82	3.36	5.14	7.01	4.37	3.51	2.06	8.91	1.74	5.28	3.60	51.42
1869,	4.28	4.76	5.31	2.12	4.24	5.58	2.89	1.28	3.25	6.32	3.73	5.12	48.88
1870,	4.66	2.53	4.06	5.61	6.28	2.90	3.95	5.12	1.71	3.89	2.10	1.89	44.12
1871,	3.47	3.09	5.81	1.83	3.38	3.78	6.81	5.97	1.77	4.86	4.29	2.26	47.32
1872,	1.49	1.12	3.67	2.60	3.15	4.29	9.20	7.81	3.66	5.20	3.43	2.74	48.36
1873,	5.84	4.75	2.05	3.51	5.83	0.90	5.00	11.49	3.63	5.80	5.10	1.38	55.28
1874,	4.58	2.46	2.16	9.76	2.75	2.96	2.25	5.65	6.01	2.87	2.32	2.48	46.25
1875,	2.83	3.20	3.10	2.83	1.36	4.13	3.63	6.42	2.53	1.42	5.40	3.37	40.22
1876,	1.52	5.03	6.71	2.16	4.45	2.29	6.71	0.98	8.77	1.06	7.31	1.40	47.89
1877,	2.62	0.84	3.40	2.66	1.10	5.22	6.53	0.66	2.74	6.52	5.14	0.85	37.26
1878,	3.94	1.64	2.89	2.55	3.29	3.66	4.35	3.83	0.96	2.04	2.19	3.19	34.53
1879,	2.73	1.19	2.28	4.21	1.22	6.77	3.62	7.13	1.12	0.41	1.38	4.69	36.75
1880,	1.51	2.43	3.53	2.43	0.54	1.67	7.74	5.09	1.10	1.74	1.76	4.05	33.58
1881,	3.66	4.76	3.83	0.61	2.71	3.87	0.96	1.18	0.94	3.04	2.02	2.63	30.21
1882,	4.57	4.22	3.57	2.12	5.06	1.90	1.37	6.40	12.09	1.32	0.99	1.97	45.58
1883,	4.13	5.04	2.02	2.44	1.91	5.91	1.78	3.40	4.24	4.20	1.34	2.76	39.17
1884,	5.46	5.70	4.70	1.63	3.39	3.00	3.83	4.30	0.20	1.54	2.31	3.28	39.34
1885,	2.93	2.79	0.69	2.54	3.76	0.74	2.39	6.80	1.17	3.33	3.35	2.87	33.36
1886,	3.69	4.62	3.17	2.70	4.50	2.86	4.23	1.38	1.29	1.89	3.91	3.00	37.24
1887,	3.23	4.43	2.59	2.00	0.62	6.81	7.14	2.31	4.92	1.68	1.38	5.06	42.17
1888,	4.30	2.57	5.42	2.10	3.46	1.09	3.38	5.86	5.73	3.23	3.77	3.15	44.06
1889,	3.75	2.00	2.58	3.17	4.32	3.39	8.29	7.07	4.66	3.76	6.76	0.85	50.60
1890,	1.83	3.39	4.61	2.28	2.96	1.30	4.03	3.36	2.31	4.82	0.80	2.33	34.02
1891,	3.65	4.71	4.42	2.34	1.74	2.51	4.65	4.22	1.90	2.57	1.70	3.78	38.19
1892,	4.48	0.98	4.32	2.03	6.12	1.98	2.97	2.74	2.06	0.30	5.71	2.09	34.78
1893,	2.58	4.85	2.57	4.47	2.92	3.07	2.04	2.43	3.76	3.32	2.51	3.13	37.65
1894,	1.78	3.07	1.45	2.99	9.46	1.63	0.75	2.15	5.11	4.66	3.26	4.03	40.34
1895,	4.52	1.39	2.61	6.14	1.72	3.15	3.23	0.59	0.61	2.97	2.32	1.76	31.01
1896,	1.57	6.87	4.11	1.19	2.27	4.07	3.27	0.46	2.76	2.08	2.50	1.00	32.15
1897,	2.17	2.97	2.06	3.03	4.33	4.53	7.70	3.52	1.10	1.70	4.41	4.52	42.04
1898,	4.10	2.80	3.05	2.93	4.84	1.75	3.67	9.06	1.83	4.85	7.19	3.21	49.28
1899,	4.01	6.20	6.47	1.04	2.30	1.09	4.69	5.18	3.66	1.98	1.93	1.41	39.96
1900,	3.34	3.71	3.12	1.94	4.11	2.82	2.77	3.95	6.31	3.00	3.43	2.41	40.91
1901,	2.47	0.86	3.39	4.77	4.05	1.15	4.88	9.43	3.68	1.51	2.64	6.73	45.54
1902,	2.77	5.49	3.97	3.29	2.01	6.08	3.51	2.34	4.97	6.68	2.04	6.63	49.78
1903,	3.52	4.29	4.38	3.00	0.93	5.48	3.84	5.67	2.31	2.86	1.03	3.29	41.50
1904,	2.14	2.21	3.24	1.89	2.08	2.88	3.82	4.43	7.21	4.06	2.55	2.28	39.76
1905,	3.12	2.56	4.18	3.48	1.41	1.77	3.11	9.67	3.65	4.07	1.61	2.98	41.61
1906,	3.16	2.47	5.69	8.17	4.41	8.04	6.33	3.56	0.36	4.97	1.72	3.07	51.87
1907,	2.65	2.75	2.81	2.88	5.61	4.66	3.96	3.50	5.99	3.38	5.85	4.67	48.71

1908,	3.14	3.21	2.83	2.35	6.85	2.41	4.54	6.41	1.79	1.81	0.67	3.13	38.13
1909,	2.53	4.63	2.92	4.49	2.67	2.26	2.19	1.95	3.55	0.83	3.50	5.86	37.36
1910,	4.23	2.99	0.38	4.76	2.13	5.40	1.84	5.73	3.05	2.90	3.65	2.55	39.60
1911,	3.22	2.69	2.72	3.68	1.68	5.10	4.19	12.10	2.52	4.20	5.58	3.67	51.35
1912,	2.57	3.30	9.10	2.89	5.38	1.91	4.15	1.71	5.62	2.42	3.21	4.74	47.00
1913,	2.99	1.90	4.66	6.87	4.63	2.15	4.29	4.61	4.24	5.66	2.85	2.56	47.41
1914,	3.46	3.32	2.71	3.43	0.90	3.70	7.75	2.31	0.86	1.49	1.79	7.35	39.07
1915,	6.74	5.56	1.00	4.23	4.12	3.45	5.02	6.84	0.46	1.98	1.22	4.22	44.83
Means,	3.31	3.30	3.49	3.37	3.69	3.68	4.06	4.48	3.49	3.23	3.29	3.43	42.71

Note: 1819-24 inclusive, Germantown record; 1825-71 inclusive, Philadelphia Hospital; 1872 to date, U. S. Weather Bureau.

Philadelphia, Philadelphia Co.—(Philadelphia Bureau of Water)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1891,	4.43	5.12	6.27	2.47	1.86	2.79	5.45	4.67	1.19	2.96	1.73	3.87	42.81
1892,	3.80	1.83	4.54	2.01	5.15	2.13	....	2.97	2.21	0.32	6.95	....	....
1893,	....	4.47	2.03	4.29	2.54	....	2.15	2.76	3.55	2.71	....	3.79	....
1894,	1.79	3.96	1.68	3.06	11.40	....	2.28	1.94	5.81	4.35	3.35	4.68	....
1895,	[illegible]	1.03	3.31	6.25	2.17	3.76	3.21	0.58	0.81	3.46	2.34	1.86	34.33
Means,	....	3.25	3.56	3.61	4.62	....	....	2.58	2.77	2.76	....	....	....

Philadelphia, Philadelphia Co. —(Centennial Avenue)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1891,	5.18	5.32	5.76	2.83	2.01	3.45	5.89	5.30	1.88	3.19	2.36	4.26	47.42
1892,	5.06	1.10	5.35	2.49	5.38	2.01	3.25	3.03	2.47	0.44	6.94	2.21	39.73
1893,	2.90	5.59	2.67	5.50	3.12	3.60	2.96	3.90	3.96	3.56	3.81	3.36	45.23
1894,	1.85	4.33	1.64	3.23	12.07	2.66	0.65	2.57	6.57	5.62	3.33	4.44	48.85
1895,	5.06	1.28	3.24	5.59	2.03	3.46	3.15	0.52	0.53	3.16	2.06	2.05	32.15
1896,	1.70	6.99	4.88	1.21	1.72	5.30	3.21	0.85	4.02	2.77	3.06	0.96	36.66
1897,	2.25	3.64	2.21	3.53	4.96	4.19	10.25	3.27	1.11	2.42	4.84	4.55	47.22
1898,	4.46	3.20	3.42	3.02	5.84	1.96	3.80	8.43	1.98	5.18	7.00	3.98	52.26
1899,	4.13	6.46	7.12	1.43	2.30	1.61	5.16	5.79	3.94	2.06	2.03	1.44	43.47
1900,	3.35	4.44	2.96	2.17	5.10	2.65	4.69	3.79	6.22	3.14	3.30	2.66	44.47
1901,	2.67	1.00	3.41	5.13	4.71	1.85	5.00	10.39	6.30	1.72	2.92	7.07	52.17
1902,	2.95	5.61	4.50	3.53	1.74	6.52	4.35	3.21	5.06	8.11	2.19	8.11	55.88
1903,	4.28	4.58	4.93	4.50	2.08	5.91	5.63	5.40	3.49	7.22	1.20	3.67	52.78
1904,	3.56	2.36	3.78	1.89	3.30	2.99	3.43	6.59	6.98	4.03	2.88	2.43	43.72
1905,	3.63	2.73	4.25	3.89	2.11	1.79	3.39	9.06	4.22	4.12	2.05	4.21	45.45
1906,	3.68	2.86	6.29	3.73	4.47	9.49	7.18	10.80	0.42	5.16	2.06	3.57	50.71
1907,	3.21	2.95	2.82	3.01	6.87	4.82	4.83	8.26	6.79	3.18	5.27	5.26	51.83
1908,	4.17	4.68	3.70	2.83	6.76	2.80	4.04	6.03	1.87	1.93	1.06	3.88	43.75
1909,	2.71	5.43	3.70	4.10	3.01	2.39	2.31	3.02	3.84	0.94	3.23	*5.86	40.54
1910,	4.30	3.19	0.95	6.14	2.81	6.07	1.53	5.62	3.19	3.02	3.28	2.89	42.99
1911,	3.48	3.29	2.76	4.22	1.26	5.76	3.88	12.71	2.65	4.76	6.10	3.79	54.66
1912,	3.58	2.59	10.16	2.70	4.40	1.91	3.69	3.32	5.33	2.75	3.64	5.11	50.18
1913,	3.16	2.40	5.12	7.17	4.77	1.58	3.39	6.28	4.68	5.85	3.20	2.96	50.86
1914,	4.19	3.76	3.29	3.73	1.39	2.58	7.89	2.10	0.66	1.68	2.00	7.74	41.01
1915,	7.08	4.98	1.54	3.01	4.71	3.78	5.96	6.58	0.45	1.82	1.46	4.65	46.04
Means,	3.70	3.84	4.02	3.62	3.94	3.66	4.38	5.27	3.54	3.51	3.23	4.04	46.74

Note: *Weather Bureau Record used for December, 1909.

Philadelphia, Philadelphia Co.—(Frankford Arsenal)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	3.65	1.87	3.69	3.75	4.43	3.00	9.59	5.00	7.40	4.15	8.00	1.70	56.23
1890,	1.45	3.10	4.45	2.20	3.95	3.60	4.60	2.70	1.70	5.38	1.05	1.70	33.88
1891,	4.01	4.89	4.65	2.60	1.65	4.25	5.87	5.75	1.50	2.30	1.60	3.75	42.82
1892,	4.86	0.85	....	....	....	....	....	....	....	....	....	....	....

Philadelphia, Philadelphia Co.—(Friends Asylum at Frankford)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1908,	4.41	4.66	3.79	3.00	8.78	2.91	4.81	5.09	2.15	1.83	1.21	4.06	46.70
1909,	3.19	5.49	3.71	4.84	3.21	2.65	2.97	3.04	3.65	0.81	3.42	6.18	43.16
1912,	....	....	....	....	....	....	....	....	7.07	3.82	4.38	5.30	....
1913,	3.16	2.45	5.41	8.08	5.61	1.92	3.29	6.50	5.06	8.49	2.95	....	....
1915,	7.24	6.50	1.68	3.81	5.22	4.24	7.60	7.62	0.85	2.63	1.40	4.95	53.74

Philadelphia, Philadelphia Co.—(Navy Yard)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1915,	....	....	....	....	....	....	....	....	....	....	1.35	3.91	....

Philipsburg, Center Co.—(Elevation 1,350 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1886,	....	....	....	0.76	....	5.70	1.80	3.09	4.30	1.70	5.70	4.80	....
1887,	6.50	10.20	4.00	4.80	3.00	5.90	....	2.63	4.60	0.35	1.36	1.77	....
1888,	3.52	0.89	2.06	1.81	4.96	1.11	4.13	7.19	3.37	4.46	3.57	2.28	38.85
1889,	2.41	1.87	2.27	6.09	5.28	5.84	5.21	2.40	2.91	3.54	5.23	3.68	46.72
1890,	2.65	5.14	3.83	3.97	7.03	2.73	0.74	4.33	6.19	5.31	1.27	4.17	46.34
Means,	....	....	....	3.39	....	4.25	....	3.93	4.17	3.07	3.42	3.34	....

Phoenixville, Chester Co.—(Elevation 190 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1890,	....	....	....	....	....	....	....	4.94	3.09	5.12	1.22	2.69	....
1891,	5.08	4.20	7.42	2.87	2.75	3.19	8.36	8.37	2.67	3.32	1.69	3.82	53.74
1892,	5.91	1.25	5.70	2.22	4.93	3.43	4.39	3.68	2.14	0.35	7.05	2.00	43.05
1893,	2.62	5.54	2.68	5.24	4.64	2.49	2.81	3.61	3.01	3.49	4.74	3.05	43.92
1894,	1.83	3.99	1.76	2.64	10.60	5.31	3.06	1.64	8.31	6.17	3.17	4.17	52.65
1897,	5.47	1.58	3.61	5.19	3.44	5.32	....	....	....	....	....	....	....
1915,	6.66	5.57	1.30	1.94	4.95	3.25	5.19	8.86	1.82	2.59	1.33	4.57	47.93
Means,	4.59	3.69	3.73	3.35	5.22	3.83	4.76	5.18	3.51	3.51	3.20	3.39	47.95

Pittsburgh, Allegheny Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1836,	......	......	......	......	......	......	......	3.28	1.55	2.04	1.59	2.18	......
1837,	2.66	2.27	1.27	1.00	4.64	7.50	1.70	2.52	1.77	3.93	3.71	2.69	35.66
1838,	1.29	1.94	1.59	......	......	......	......	......	......	......	......	......	......
1839,	1.40	1.80	1.76	1.80	2.08	2.25	2.40	1.50	3.75	0.60	2.70	3.28	25.32
1840,	1.33	1.33	3.47	2.18	2.93	3.70	1.57	3.89	2.12	2.68	1.71	1.73	28.64
1841,	2.74	0.37	4.77	3.82	2.40	4.97	1.73	4.01	1.85	2.31	2.77	3.11	34.85
1842,	2.75	2.88	3.75	4.64	2.86	4.96	4.90	3.91	2.20	2.09	1.72	3.79	40.45
1843,	2.70	3.31	3.27	2.33	4.05	3.83	1.87	2.32	6.44	3.46	2.87	2.26	38.71
1844,	2.20	0.93	3.04	1.79	4.89	4.02	2.44	4.47	2.57	2.85	1.85	1.50	32.55
1845,	2.85	1.50	3.04	2.51	1.18	4.04	3.74	3.06	3.39	3.37	2.02	1.19	31.89
1846,	2.92	2.73	2.02	3.76	4.62	4.05	7.15	6.05	1.95	4.78	2.60	5.16	47.79
1847,	3.01	2.86	3.47	2.55	3.64	5.32	4.18	3.26	3.92	4.76	4.27	4.98	46.22
1848,	1.31	0.50	3.20	2.45	5.51	3.03	3.69	2.27	2.06	2.11	3.11	4.88	34.14
1849,	2.43	1.31	3.85	0.83	5.53	2.84	1.36	3.26	1.26	3.86	3.97	4.11	34.61
1850,	3.76	2.45	2.71	2.59	3.30	2.62	2.32	1.27	3.62	4.29	2.19	4.76	37.41
1851,	0.35	3.01	1.43	2.83	3.57	2.04	4.30	2.66	2.62	1.45	3.67	1.71	29.64
1852,	1.80	2.34	2.03	9.27	3.84	2.76	2.55	2.76	3.00	2.24	2.67	5.01	41.36
1853,	1.56	3.53	1.11	4.16	3.27	1.32	2.74	6.56	2.34	2.04	2.90	2.10	33.63
1854,	2.23	2.33	2.82	4.21	2.24	2.06	1.45	1.13	1.76	2.89	1.88	1.67	26.67
1855,	2.15	1.77	3.08	2.60	2.33	7.58	5.57	3.57	4.79	1.54	5.07	3.28	43.33
1856,	2.64	1.80	1.73	2.29	2.72	3.99	2.71	1.60	1.95	2.05	1.97	1.34	26.79
1857,	1.86	1.56	1.03	2.50	6.34	5.14	2.89	4.65	2.20	3.66	3.52	3.61	38.96
1858,	1.15	2.78	0.99	4.29	6.60	4.30	3.60	1.90	1.03	2.40	2.37	4.77	36.18
1859,	0.43	2.67	3.83	4.79	2.00	3.02	1.87	5.00	2.74	3.00	1.69	4.67	35.71
1860,	1.75	1.25	1.19	6.96	3.69	2.17	3.09	3.32	1.91	4.45	3.96	2.04	35.78
1861,	1.96	2.65	1.80	3.48	2.70	1.75	4.69	3.00	5.70	......	1.81	0.44	......
1862,	3.60	1.20	2.87	2.79	2.49	4.00	2.60	1.20	1.51	3.45	2.10	1.57	29.38
1863,	3.91	2.33	2.69	2.17	2.11	3.38	1.42	2.26	2.72	3.43	2.45	2.75	31.62
1864,	1.48	1.77	4.82	2.21	4.46	2.10	2.55	8.29	8.25	......	3.93	2.75	......
1865,	2.75	1.37	4.53	3.20	5.36	5.48	6.26	5.54	7.56	3.21	1.48	3.46	50.50
1866,	......	......	......	......	......	......	......	......	7.50	4.90	4.16	2.75	......
1867,	2.58	4.11	4.30	2.90	......	......	......	......	......	......	......	......	......
1872,	1.85	1.03	1.38	1.09	2.66	2.69	7.77	2.81	2.57	4.37	0.83	2.86	31.91
1873,	3.16	3.08	3.87	3.06	3.43	2.15	3.44	5.19	1.94	6.21	2.12	3.77	41.42
1874,	2.92	3.15	2.94	7.20	2.43	1.84	7.68	1.98	2.56	0.06	3.36	3.30	39.42
1875,	2.17	1.57	3.45	2.09	2.79	2.85	5.27	2.19	2.56	2.36	2.96	3.79	34.05
1876,	3.59	2.83	3.80	2.04	3.35	1.47	5.86	2.72	7.35	1.14	2.03	0.83	37.01
1877,	2.99	1.43	5.31	2.88	1.66	3.54	3.98	2.10	1.90	2.76	4.48	1.69	34.72
1878,	2.52	1.14	2.42	2.60	1.76	6.18	5.15	1.29	5.55	2.99	4.20	3.96	38.76
1879,	1.54	1.74	2.99	1.63	1.20	4.56	7.78	5.56	1.01	0.65	3.36	5.00	37.02
1880,	3.02	2.63	2.77	2.41	1.25	3.52	2.15	3.62	3.12	2.80	1.73	2.95	31.97
1881,	3.55	3.45	3.35	1.81	2.34	6.95	3.86	0.88	0.76	3.75	2.66	3.94	37.30
1882,	4.58	3.14	3.78	1.39	5.80	4.14	1.99	4.50	4.08	1.74	2.07	1.42	38.63
1883,	3.22	4.92	3.51	3.69	5.38	4.73	5.53	3.40	2.47	2.43	1.50	3.40	43.17
1884,	4.82	4.57	3.71	1.11	3.48	1.71	4.04	2.94	1.17	2.02	1.18	4.07	34.82

Pittsburgh, Allegheny Co.—Continued

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1885,	4.03	1.90	1.14	2.79	3.26	2.68	2.49	5.64	1.69	4.29	2.57	1.64	34.12
1886,	3.21	1.39	2.85	4.03	3.51	5.17	5.56	2.85	2.88	1.06	4.91	1.81	39.21
1887,	1.92	6.52	1.49	4.29	5.78	4.50	9.51	2.16	2.03	0.39	1.37	1.99	41.95
1888,	6.17	1.74	2.51	1.04	4.13	2.22	4.36	7.26	1.77	3.46	3.57	1.66	39.89
1889,	2.50	1.58	2.32	3.62	6.45	4.93	5.48	1.88	2.87	2.06	4.61	3.07	41.37
1890,	4.18	5.53	3.86	4.87	6.85	3.37	2.23	4.06	4.24	5.66	1.14	5.64	50.61
1891,	2.43	6.09	3.11	1.18	3.23	3.90	7.65	1.60	1.90	1.53	2.61	3.06	38.28
1892,	3.29	1.85	2.29	2.93	3.77	4.15	5.88	2.22	2.04	0.51	1.81	1.93	32.66
1893,	2.36	4.74	1.17	4.94	4.50	2.87	5.08	2.94	1.86	3.22	1.46	2.70	37.84
1894,	2.02	2.98	2.41	3.63	4.63	0.61	1.16	0.43	3.68	1.72	1.80	3.10	28.17
1895,	4.16	0.77	1.73	1.83	1.97	2.26	2.11	4.29	1.83	1.11	2.24	3.20	27.50
1896,	1.63	2.89	4.13	3.29	3.91	4.79	8.96	4.09	4.17	2.36	2.76	1.37	44.35
1897,	1.34	4.39	3.30	3.41	2.70	2.97	4.52	2.08	1.65	0.13	5.11	3.44	35.08
1898,	3.40	1.60	5.45	1.60	3.99	3.98	2.56	4.01	1.06	3.85	2.34	1.92	35.76
1899,	3.41	2.68	3.37	2.59	3.26	3.72	3.13	2.57	2.66	2.10	2.12	2.24	33.85
1900,	1.54	2.86	2.35	1.25	1.34	3.25	3.42	0.84	1.01	2.24	3.64	1.99	25.73
1901,	1.98	0.91	3.69	8.11	5.80	4.41	2.84	4.01	1.96	0.38	1.80	4.84	40.76
1902,	1.49	1.45	4.15	2.70	2.30	5.79	2.94	1.61	2.21	2.79	1.08	3.71	32.22
1903,	2.33	3.99	4.29	2.83	1.67	5.27	5.66	4.71	1.04	2.88	2.60	1.55	38.81
1904,	2.31	2.00	5.11	3.02	3.48	5.76	2.72	2.36	2.35	2.09	0.22	2.34	33.76
1905,	2.36	1.41	3.03	2.07	2.79	6.64	3.01	3.11	2.41	3.54	1.80	3.02	35.19
1906,	1.84	1.09	3.85	1.70	2.08	4.08	4.18	2.96	3.10	2.94	0.95	2.52	31.29
1907,	5.58	0.74	5.24	1.99	1.79	3.17	4.95	1.89	3.25	1.64	1.59	3.03	34.66
1908,	1.65	2.89	5.23	3.50	3.84	1.14	5.07	2.48	0.71	0.95	0.69	1.94	30.17
1909,	3.10	4.47	3.14	5.23	1.51	4.92	1.22	3.33	0.76	2.36	0.84	2.80	33.18
1910,	5.33	3.90	0.37	2.21	3.24	1.94	1.26	2.47	5.50	1.69	1.32	2.87	31.80
1911,	3.36	1.98	1.90	5.42	0.42	2.63	2.17	6.30	6.36	4.94	2.02	3.79	41.29
1912,	1.90	1.80	4.83	4.32	1.56	5.67	6.61	2.39	2.89	2.67	0.80	2.86	35.30
1913,	5.28	2.11	4.87	2.53	3.11	1.04	4.86	2.81	2.86	4.38	2.68	2.60	38.19
1914,	2.41	3.13	2.12	3.98	2.64	3.31	1.89	4.52	0.69	3.07	1.35	4.27	33.48
1915,	4.66	2.24	1.26	1.27	3.84	5.36	3.37	2.73	1.71	2.84	2.37	3.85	35.50
Means,	2.68	2.46	2.98	3.07	3.35	3.70	3.88	3.23	2.81	2.66	2.45	2.93	36.19

Note: 1836-67 records obtained at Allegheny Arsenal.

Pittsburgh, Allegheny Co.—(Allegheny Arsenal)—(Elevation 704 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	2.96	1.50	2.40	2.92	6.50	5.70	5.52	1.90	2.79	2.07	4.40	2.99	41.65
1890,	4.21	5.66	4.01	4.94	5.10	3.86	2.85	4.71	4.96	6.32	1.42	4.98	53.02
1891,	2.55	5.60	3.59	1.41	3.40	3.84	7.30	1.92	2.39	1.67	2.60	3.05	39.32
1892,	3.64	2.31	....	....	....	....	....	....	....	....	....	....	....

Pleasant Mount, Wayne Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	....	....	2.60	5.25	6.90	7.15	7.59	3.90	3.40	4.50	6.05	3.12	....
1890,	4.70	4.20	4.88	2.70	....	5.20	4.85	....	4.60	6.95	1.70	....	....
1891,	*4.80	4.60	5.42	3.47	2.45	3.10	4.30	4.30	2.55	3.45	3.11	4.85	45.40
1892,	6.74	2.15	5.20	1.85	7.30	....	....	....	....	....	....	....	....

Note: *Interpolated.

Plymouth Meeting, Montgomery Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1868,	....	1.46	....	....	....	....	....	....	....	....	....	1.19	....
1869,	3.68	4.34	4.62	1.17	4.22	4.37	2.33	1.33	3.82	7.70	4.06	5.55	47.19
1870,	3.89	2.89	4.64	5.79	6.66	3.40	5.21	5.06	2.19	6.02	2.27	1.49	49.51
1871,	4.04	2.82	4.40	0.99	3.15	8.06	4.51	4.49	1.06	3.36	3.27	0.90	41.20
1872,	0.90	0.74	3.50	1.81	2.12	....	....	....	....	....	....	....	....
Means,	3.13	2.45	4.29	2.44	4.04	5.28	4.02	3.79	2.36	5.69	3.20	2.28	42.97

Pocono Lake, Monroe Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1901,	....	....	....	....	....	....	....	....	....	3.35	1.69	7.04	....
1902,	2.07	4.91	5.63	4.06	0.82	6.25	6.84	3.41	11.95	5.69	0.70	2.66	54.99
1903,	1.83	3.97	5.58	....	0.82	7.03	5.90	6.53	2.97	8.03	1.85	3.83	....
1904,	3.44	2.16	4.64	2.74	3.72	6.31	3.22	3.58	4.79	3.66	1.48	2.39	42.13
1905,	4.08	0.85	2.48	1.51	1.87	2.55	4.79	6.75	5.75	4.77	2.25	3.47	41.12
1906,	1.79	3.68	5.43	4.26	4.56	6.49	4.38	4.24	2.30	7.47	1.82	3.40	49.82
1907,	3.21	1.68	1.08	1.20	2.09	5.69	2.24	2.55	7.54	4.35	5.29	6.39	43.31
1908,	2.22	4.71	3.32	4.40	6.01	1.50	2.98	2.93	3.86	5.48	0.50	1.26	39.17
1909,	1.58	6.00	3.60	6.47	2.63	5.41	3.23	1.61	3.95	1.98	1.54	3.67	41.67
1910,	7.10	1.41	1.21	5.69	5.68	3.73	1.30	3.08	4.76	2.01	3.56	3.97	43.50
1911,	2.90	1.50	2.03	3.91	2.59	5.69	7.41	6.51	3.25	4.26	2.48	2.08	44.61
1912,	1.88	2.46	4.15	5.47	3.51	1.38	1.50	6.73	6.20	4.48	1.02	6.48	45.26
1913,	3.97	1.71	5.99	6.56	3.52	....	....	....	....	....	4.20	....	....
1914,	....	....	....	....	....	1.52	5.52	0.64	....	....	....	....	....
1915,	....	....	....	1.69	4.24	1.51	3.98	9.48	2.96	5.33	2.36	1.36	....
Means,	3.01	2.92	3.76	4.02	3.24	4.24	4.10	4.46	5.02	4.68	2.20	3.69	45.34

Note: Nov. 1913 to Aug. 1914, station located at Pocono Pines; from April 1915, station located at Mt. Pocono.

Pocopson, Chester Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1854,	3.00	8.66	1.43	6.97	4.30	3.39	3.50	1.54	3.97	1.87	3.57	3.70	45.90
1855,	3.82	3.39	1.81	2.06	3.72	8.11	3.26	4.13	7.09	4.68	2.24	6.26	49.56
1856,	3.91	1.28	2.02	3.71	3.94	1.18	1.71	5.10	3.83	0.91	2.37	4.39	34.35
1857,	3.87	0.94	2.18	5.28	6.56	5.75	2.51	7.17	1.28	4.14	1.42	5.62	46.72
1858,	2.20	2.72	1.07	3.68	8.64	5.36	2.27	5.73	1.23	1.63	5.11	4.67	44.31
1859,	5.09	2.94	5.64	5.23	1.58	4.43	3.20	3.93	8.62	2.64	4.09	3.27	50.66
1860,	....	....	1.39	4.43	5.96	2.75	1.17	8.96	4.30	6.33	7.14	4.47	....
1861,	4.65	2.41	3.00	3.93	5.91	3.00	2.93	3.19	2.88	3.19	4.80	1.87	41.76
1862,	4.32	4.32	4.01	3.87	1.21	7.65	3.28	1.89	3.39	3.16	4.40	1.23	42.73
1863,	4.00	4.86	6.35	5.75	4.51	1.70	8.96	1.58	1.78	3.61	2.80	5.25	51.14
1864,	2.06	0.45	5.00	5.26	7.30	3.37	3.67	2.66	5.15	2.25	3.89	4.05	45.11
1865,	3.42	4.44	5.12	2.58	5.99	7.14	3.49	1.82	3.63	3.84	2.35	4.78	48.60
1866,	2.09	6.14	1.55	2.39	4.32	3.94	1.44	3.19	7.45	2.80	2.25	2.91	40.47
1867,	1.32	3.50	5.00	2.33	8.42	8.65	3.65	9.48	1.59	2.70	1.67	2.81	51.12
1868,	2.86	2.11	3.20	4.20	4.82	4.68	5.70	4.67	9.40	1.56	4.56	2.42	50.18
1869,	3.10	4.35	4.35	2.41	3.97	3.86	1.51	0.82	5.19	5.78	4.95	4.30	44.59
1870,	4.00	3.55	2.91	6.27	3.90	5.60	3.35	8.15	2.12	4.78	1.42	2.00	48.06
1871,	3.25	3.22	5.42	1.84	2.60	5.00	6.92	5.00	1.99	3.80	4.19	1.85	44.98
1872,	1.41	1.06	3.46	2.13	2.32	8.03	3.60	7.21	4.46	3.17	3.77	3.55	44.17
1873,	5.18	4.06	2.36	5.21	5.18	0.75	4.50	8.56	5.73	6.40	3.80	1.21	52.94
Means,	3.29	3.39	3.36	3.98	4.75	4.72	3.53	4.74	4.25	3.46	3.54	3.53	46.54

Also called "Parkersville" 1854-59.

Point Pleasant, Bucks Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	4.64	2.20	3.45	5.11	5.59	5.32	12.30	3.75	8.14	5.06	8.63	1.69	65.88
1890,	2.44	4.73	6.37	1.84	5.57	3.58	5.38	6.01	2.44	5.76	0.95	3.20	48.27
1891,	6.53	4.67	5.08	1.70	2.94	3.51	6.94	9.56	1.31	4.32	1.95	4.86	53.37
1892,	6.31	1.29	3.83	2.13	5.88	3.06	3.96	3.60	2.80	1.00	6.85	1.87	42.48
1893,	2.80	6.06	1.54	4.80	5.04	4.99	2.33	9.71	3.01	4.08	4.40	3.30	52.36
1894,	1.84	4.63	1.39	3.74	13.09	2.79	2.12	1.30	10.67	4.75	2.88	4.14	53.34
1895,	4.63	0.73	3.42	5.99	2.78	5.41	2.36	6.67	0.55	3.95	1.93	1.76	40.18
1896,	1.32	8.75	6.55	1.39	2.81	5.34	7.12	3.20	3.24	2.25	3.37	1.25	46.59
1897,	1.82	3.06	2.08	2.91	9.98	6.04	8.76	2.93	1.24	1.79	4.70	4.57	48.88
1898,	4.15	3.34	2.46	3.11	10.15	0.79	6.29	6.07	1.28	4.87	6.47	3.42	52.40
1899,	*3.00	4.99	6.93	*1.87	1.55	2.11	*3.07	5.91	*5.77	*1.37	2.52	*2.13	*41.22
1900,	*4.15	*4.70	*3.20	*2.10	*6.04	*3.65	*6.11	*3.29	*2.86	*2.95	*3.06	*2.26	*44.37
1901,	2.55	0.78	4.35	6.87	5.59	0.88	3.00	8.31	1.77	1.16	2.04	7.34	43.64
1902,	2.85	6.32	3.28	3.50	1.72	5.07	4.46	3.21	7.17	5.88	1.66	7.03	52.15
1903,	4.11	5.03	4.55	4.59	0.34	8.00	7.02	5.07	2.68	9.70	1.37	4.46	56.92
1904,	4.19	2.21	3.68	2.96	3.38	3.50	4.19	7.48	6.11	4.67	2.25	2.47	47.09
1905,	3.94	2.32	3.75	3.23	0.56	2.64	3.55	9.81	3.96	3.56	2.67	3.13	43.12
1906,	2.96	2.46	5.23	3.42	4.94	4.79	3.92	2.93	1.12	6.38	1.43	4.49	43.05
1907,	3.67	2.56	3.05	2.89	3.25	4.72	2.79	3.98	11.32	5.64	5.15	4.60	53.62
1908,	3.35	4.31	3.53	2.46	7.83	2.65	4.27	5.46	2.70	3.56	0.85	3.07	44.04
1909,	3.16	4.99	3.37	5.52	2.99	3.04	2.15	3.41	2.56	1.05	3.29	5.08	40.61
1910,	5.15	3.64	1.09	6.61	3.04	3.77	0.40	4.72	4.30	2.47	3.86	2.33	41.38
1911,	3.50	2.46	3.13	3.93	2.65	3.15	4.45	9.63	2.60	5.71	4.61	3.71	49.52
1912,	2.06	2.29	7.93	3.64	3.07	2.26	4.31	4.89	5.02	5.07	3.83	5.07	49.44
1913,	3.34	2.35	5.16	6.20	2.86	1.39	2.78	4.55	6.65	7.72	3.77	2.77	49.54
Means,	3.54	3.63	3.95	3.66	4.55	3.66	4.56	5.41	4.05	4.15	3.38	3.60	48.14

Note: *Interpolated.

Pottstown, Montgomery Co.—(Elevation 140 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1876,	1.80	3.60	7.70	3.20	3.20	2.80	7.10	2.00	9.00	2.00	4.50	0.40	47.30
1877,	1.10	1.80	5.60	3.00	1.26	7.00	6.75	3.09	3.67	7.60	4.94	1.20	47.01
1878,	3.19	3.08	3.25	4.42	4.65	4.20	6.60	2.70	1.67	2.86	3.60	5.30	45.42
1879,	1.60	1.05	2.38	4.50	2.35	6.40	4.67	8.32	1.30	0.58	1.50	5.72	40.37
1880,	2.43	1.55	4.45	2.83	0.85	3.02	10.55	2.35	2.86	2.47	2.48	1.97	37.81
1881,	3.73	4.05	5.72	0.94	3.41	7.48	1.88	0.83	1.10	2.33	2.80	4.13	39.56
1882,	2.69	3.93	2.90	2.44	7.66	5.00	2.33	4.51	6.64	2.17	0.46	1.81	42.34
1883,	2.82	3.32	1.33	3.45	2.80	5.65	4.29	4.89	4.80	4.64	1.88	1.10	40.97
1884,	4.67	4.42	4.55	2.76	4.00	6.53	7.08	1.83	0.60	3.64	3.77	5.19	49.04
1885,	3.19	3.20	0.50	2.63	5.11	1.55	2.03	5.92	1.07	4.62	4.21	3.40	37.43
1886,	3.17	4.25	4.30	3.45	6.75	4.83	6.76	1.13	1.51	2.40	5.12	3.13	46.80
1887,	2.69	4.33	2.44	2.30	2.55	4.58	9.00	2.45	4.77	1.40	1.48	6.50	44.49
1888,	4.31	4.08	5.35	2.87	4.25	1.55	3.31	6.13	7.32	2.82	3.42	4.80	50.21
1889,	4.12	1.92	3.74	6.15	7.47	6.20	12.50	5.05	8.44	4.56	9.15	2.03	71.32
1890,	2.35	4.81	8.05	1.97	7.61	2.11	5.45	3.80	4.01	6.10	1.00	2.86	50.12
1891,	7.00	4.05	6.60	1.80	2.28	4.20	8.91	7.01	2.63	3.96	1.58	4.08	54.09
1892,	6.46	2.22	3.73	1.80	7.59	3.29	3.66	3.49	2.33	0.32	6.60	1.94	43.43
1893,	3.21	6.40	2.82	6.20	4.80	3.64	1.90	4.52	3.69	3.13	4.78	2.81	47.99
1894,	2.14	4.25	1.74	3.20	12.26	1.74	5.96	2.01	7.94	5.20	2.80	5.32	54.56
1895,	5.65	1.48	3.57	5.13	3.89	3.46	2.53	4.42	1.01	3.64	2.20	3.20	40.18
1896,	1.97	7.08	3.39	1.85	3.07	3.01	6.10	0.55	6.33	3.95	4.28	0.63	44.39
1897,	2.90	6.07	2.55	3.80	7.27	4.90	6.27	2.64	1.54	2.38	6.48	5.00	50.78
1898,	5.95	3.55	3.07	3.86	5.95	1.06	2.13	6.84	1.85	5.57	....	....	....
1901,	2.10	0.50	5.19	4.84	5.05	2.52	3.81	5.64	2.16	2.20	1.85	8.15	44.61
1902,	3.71	6.00	3.52	....	....	....	....	....	....	....	....	....	....
1914,	....	....	....	3.40	0.97	2.76	7.74	3.20	0.31	1.46	2.01	6.29	....
1915,	6.50	5.84	1.49	1.68	3.59	2.37	5.18	10.47	1.36	1.91	1.47	4.71	46.57
Means,	3.54	3.69	3.92	3.25	4.64	3.94	5.57	4.07	3.46	3.23	3.37	3.70	46.38

Pottsville, Schuylkill Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1883,	4.80	3.66	3.62	3.17	4.46	8.41	3.13	1.77	4.40	5.51	1.70	2.98	47.61
1884,	4.21	6.00	6.36	2.72	3.39	2.92	5.38	2.81	1.62	3.73	3.30	6.08	48.52
1885,	6.00	3.56	0.94	2.48	3.59	0.20	1.45	10.31	0.90	7.06	4.43	3.78	45.19
1886,	7.17	3.21	4.76	3.01	6.80	3.50	5.82	2.27	2.15	3.24	6.30	2.43	50.66
1887,	3.82	5.31	1.34	2.60	3.32	4.04	5.69	6.18	2.95	1.05	1.75	5.56	43.61
1888,	5.72	4.63	5.35	3.26	6.04	7.04	2.98	8.97	7.40	3.65	4.79	4.28	64.11
1889,	4.72	2.03	2.64	5.66	5.55	5.60	9.27	6.06	4.58	4.86	9.29	2.90	63.15
1890,	2.25	5.05	5.36	2.96	8.35	2.23	6.36	8.35	4.54	5.85	1.28	3.30	55.88
1891,	6.70	3.60	4.80	2.41	2.07	3.67	6.95	7.88	1.90	2.94	3.31	4.65	50.88
1892,	6.03	0.32	4.90	1.48	5.58	5.24	2.53	4.54	3.64	0.43	5.11	1.58	41.38
1893,	3.66	6.24	3.30	4.14	7.23	2.16	2.66	4.42	4.69	4.42	3.31	2.27	48.50
1894,	2.15	3.37	1.82	3.94	14.15	5.21	4.29	2.67	5.22	6.21	3.61	3.60	56.24
1895,	4.84	0.78	2.32	4.61	3.34	2.93	1.02	5.28	1.66	3.06	2.73	4.87	37.44
1896,	1.43	6.50	5.28	1.01	4.08	3.45	10.82	3.02	5.21	5.22	7.34	0.93	54.27
1897,	2.45	3.13	2.63	3.36	8.01	2.62	7.43	2.93	1.76	1.61	7.20	4.16	47.29
1898,	4.59	1.32	3.88	3.07	5.48	3.09	6.28	10.55	0.81	7.42	4.83	3.61	54.93
1899,	2.41	3.63	5.32	1.96	4.23	5.36	2.91	4.90	5.75	0.87	2.33	3.23	42.90
1900,	3.28	5.63	4.86	1.37	2.17	1.76	6.23	4.46	1.65	2.10	2.99	2.46	38.96
1901,	1.75	0.85	5.52	4.30	6.63	2.13	2.49	10.68	3.57	1.94	1.77	9.73	51.36
1902,	4.41	5.64	5.49	4.36	0.87	7.12	6.43	5.05	6.34	6.04	1.61	7.80	61.16
1903,	4.04	5.55	5.81	4.77	0.46	7.23	8.81	5.16	2.76	4.85	1.21	3.54	54.19
1904,	3.86	2.20	4.83	2.92	3.16	4.67	5.27	5.25	4.46	3.45	1.87	2.49	44.43
1905,	5.21	1.87	4.98	2.14	1.50	2.66	3.98	9.21	4.96	6.05	2.73	4.02	49.31
1906,	2.50	2.73	5.89	5.24	4.17	6.05	2.66	3.67	4.37	6.66	1.08	5.08	50.10
1907,	3.55	1.86	3.93	2.33	2.15	5.20	2.81	4.13	7.79	4.34	3.55	7.17	48.81
1908,	2.53	7.10	4.17	3.48	5.97	1.21	5.13	2.68	3.38	3.04	0.66	3.17	42.52
1909,	3.18	5.03	3.20	5.33	3.28	3.87	2.43	0.34	2.88	3.48	1.36	4.32	38.70
1910,	5.91	4.19	0.49	8.13	6.83	5.74	2.26	3.10	4.43	2.43	2.90	3.32	49.73
1911,	3.28	1.99	3.41	4.43	3.95	2.92	4.84	8.60	4.09	7.50	4.06	3.69	51.76
1912,	1.88	2.73	6.46	5.89	2.53	2.95	5.70	4.23	7.83	3.06	2.80	4.80	50.85
1913,	4.36	1.96	7.91	6.67	3.33	1.78	5.34	3.27	4.71	6.63	3.27	3.60	52.82
1914,	3.60	2.36	2.60	4.74	3.22	3.99	7.15	4.07	1.30	2.30	2.23	5.49	43.14
1915,	7.69	6.29	1.47	2.26	3.43	2.15	8.93	10.48	2.31	2.50	2.68	4.78	54.97
Means,	4.06	3.65	4.11	3.64	4.49	4.22	5.01	5.39	3.82	4.04	3.31	4.11	49.85

Promised Land, Pike Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1913,	....	....	....	....	....	....	....	....	....	5.09	3.88	....	....
1914,	*2.11	1.29	2.42	3.60	3.19	3.93	4.22	3.04	0.74	1.60	1.80	4.35	32.29
1915,	*5.40	5.55	0.45	2.54	3.30	1.90	5.76	7.79	3.07	2.07	2.59	4.16	44.58

Notes: *Mean of Wilsonville, Paupack, Salem (Hamlinton) and South Sterling. This record furnished by L. B. Stillwell, Consulting Engineers, New York City.

Punxsutawney, Jefferson Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1913,	....	....	....	....	....	....	5.71	1.76	3.57	4.81	3.44	2.75	....
1914,	4.62	4.37	4.51	4.03	3.82	6.08	2.53	....	2.53	....	1.42	5.09	....
1915,	7.49	3.00	2.80	1.23	4.68	....	....	....	....	....	....	....	....

Quakertown, Bucks Co.—(Elevation 536 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1872,	1.69	0.92	2.13	4.01	2.74	2.76	5.22	7.51	3.13	4.01	4.20	0.87	39.19
1873,	4.00	3.91	3.38	3.14	5.63	1.56	3.47	3.30	3.82	6.13	1.94	1.00	41.28
1874,	3.57	1.88	0.63	7.56	1.06	....	4.32	3.51	3.44	3.40	0.55	0.26	....
1875,	0.50	4.44	3.25	1.50	1.84	1.87	2.25	1.69	0.90	2.90	4.20	2.39	27.73
1876,	1.20	4.05	4.50	1.60	2.80	1.01	2.40	0.45	6.90	1.19	3.33	2.50	31.93
1880,	....	....	....	....	1.00	1.66	7.04	1.50	2.54	1.82	2.30	3.01	....
1881,	3.40	4.01	4.46	0.69	5.12	4.10	0.73	0.27	0.89	1.57	2.15	4.71	32.10
1882,	2.95	4.18	4.47	2.20	7.30	3.00	1.95	3.95	7.25	1.85	0.65	1.20	40.95
1883,	3.40	3.20	1.69	2.65	2.09	6.98	1.05	2.25	3.72	4.10	1.47	2.15	34.75
1884,	2.96	4.74	4.99	2.70	3.53	6.54	7.92	3.76	0.53	4.38	3.53	6.46	52.04
1885,	4.52	4.38	1.21	2.79	2.32	0.81	1.26	8.34	0.52	4.29	4.23	3.15	37.82
1886,	3.68	5.74	4.46	2.64	6.66	5.06	4.86	0.68	1.17	2.65	4.89	2.43	44.92
1887,	3.88	4.05	2.08	1.79	2.59	4.56	9.25	4.75	3.52	1.70	1.56	6.05	46.18
1888,	4.45	4.26	4.94	4.23	3.02	1.85	3.44	8.58	9.36	3.72	3.71	4.75	56.31
1889,	4.58	2.38	3.47	4.83	6.45	7.31	11.54	4.76	8.06	5.23	8.88	2.43	68.92
1890,	3.19	5.18	8.31	3.22	6.55	3.13	5.50	6.86	4.82	7.25	1.24	3.21	57.46
1891,	6.26	5.13	5.59	2.74	2.56	4.71	7.29	8.02	1.17	2.96	2.31	4.47	53.21
1892,	5.41	1.35	5.30	1.86	5.08	3.60	4.50	5.77	2.97	0.63	7.08	1.95	45.50
1893,	3.65	6.93	3.11	5.15	5.41	2.21	2.25	8.90	3.67	3.42	4.44	3.49	52.63
1894,	1.87	4.16	1.68	2.27	15.02	3.22	1.97	3.09	7.22	5.80	3.52	5.33	55.15
1895,	3.73	1.47	2.70	5.41	3.60	3.47	4.63	2.13	0.87	8.38	2.60	3.19	37.18
1896,	1.30	7.44	4.67	1.61	2.91	3.03	8.20	0.67	7.11	3.50	4.51	0.79	45.74
1897,	3.01	3.84	2.71	3.32	7.77	3.81	8.06	3.43	1.50	2.29	5.58	4.70	50.02
1898,	4.20	3.71	3.19	3.66	6.28	0.89	3.45	5.38	2.70	5.20	7.34	4.47	50.45
1899,	3.74	4.27	7.14	2.05	3.04	3.96	4.23	5.76	8.16	1.17	2.93	2.61	49.06
1900,	3.68	5.85	2.88	2.07	3.46	2.65	6.64	3.93	1.65	3.02	2.56	2.64	41.02
1901,	2.57	0.99	5.11	5.54	4.86	2.48	2.22	6.24	3.07	1.73	1.97	8.08	44.86
1902,	3.26	6.05	4.90	4.31	1.56	5.15	3.99	3.32	7.90	5.68	1.70	8.06	54.87
1903,	4.55	5.08	4.02	4.57	0.69	9.23	5.67	4.61	1.34	7.82	1.38	3.12	52.08
1904,	3.36	2.40	3.02	2.46	3.53	5.33	5.68	7.67	6.46	3.82	1.57	3.16	48.45
1905,	5.42	1.19	3.72	2.31	....	....	....	....	....	....	....	....	....
1914,	....	....	....	....	1.66	3.85	4.81	3.04	0.90	1.59	1.96	5.22	....
1915,	5.22	4.64	1.79	3.61	3.48	2.56	6.13	....	2.09	3.10	1.90	2.96	....
Means,	3.52	3.90	3.73	3.18	4.09	3.62	4.75	4.29	3.73	3.45	3.19	3.46	44.91

Reading, Berks Co.—(Elevation 269 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1839,	......	......	......	3.20	4.57	1.99	5.00	2.96	3.22	1.25	2.19	......	......
1840,	......	......	......	......	......	4.29	2.63	3.38	1.49	3.68	2.10	3.84	......
1869,	......	......	......	......	......	......	2.20	1.02	4.83	9.49	2.82	5.44	......
1870,	3.97	5.88	4.61	6.46	3.91	5.69	3.74	5.58	2.38	3.00	2.09	2.39	49.70
1871,	2.79	5.83	6.30	1.90	4.10	6.24	5.13	5.12	2.34	1.62	3.94	0.98	46.29
1872,	1.09	1.29	2.99	3.66	2.86	3.45	4.93	6.30	3.78	3.07	4.15	3.31	40.88
1873,	4.03	5.23	2.29	5.12	5.58	0.61	8.32	6.85	6.65	7.00	5.09	1.76	58.53
1874,	3.39	3.40	1.80	6.42	2.51	0.87	6.39	2.56	3.52	1.35	1.89	2.79	36.89
1875,	2.61	3.46	3.29	1.60	1.65	3.85	3.22	8.45	1.55	5.07	......	......	......
1877,	......	......	......	......	......	......	......	......	4.34	7.16	5.77	1.46	......
1878,	5.01	2.43	3.44	2.75	3.48	2.73	1.63	1.84	3.18	3.74	2.63	4.37	37.23
1879,	2.41	2.21	2.37	......	......	......	......	......	......	......	......	......	......
1880,	1.82	1.97	3.97	2.96	0.66	2.58	4.71	2.52	2.36	1.88	2.78	3.25	31.46
1881,	3.78	4.37	6.14	0.99	3.69	7.08	1.36	1.02	1.66	2.40	2.56	5.34	40.39
1882,	5.09	4.36	4.04	1.90	6.68	2.43	2.14	3.33	4.65	2.36	0.95	1.96	39.89
1883,	4.42	4.43	3.09	3.05	1.61	6.05	3.83	2.99	3.80	4.20	0.81	2.73	41.01
1884,	5.25	5.52	5.44	3.30	3.96	3.75	6.22	2.77	0.68	2.77	2.79	6.22	48.67
1885,	4.41	3.66	1.08	2.73	3.15	1.30	2.03	7.09	0.50	5.47	4.50	3.21	39.13
1886,	4.19	4.10	4.63	1.97	6.26	3.57	4.33	0.28	1.00	2.31	4.46	3.47	40.48
1887,	4.24	5.25	2.05	2.15	2.75	4.24	7.90	2.47	3.78	1.69	1.31	5.12	42.95
1888,	4.66	3.50	5.19	3.62	3.83	3.33	2.50	6.65	7.57	3.77	4.06	3.44	52.12
1889,	3.74	1.62	3.71	6.33	3.60	8.21	9.30	4.46	7.08	5.74	8.88	2.35	65.02
1890,	3.18	4.15	4.88	2.62	6.50	3.36	4.54	4.51	3.98	5.31	0.88	2.47	46.38
1891,	5.15	3.51	5.35	1.71	2.21	2.37	7.35	11.76	1.57	2.99	1.38	3.61	48.96
1892,	5.94	0.54	4.93	1.32	4.00	2.07	3.37	4.57	2.54	0.30	5.41	1.46	36.35
1893,	2.15	5.49	2.70	2.95	4.44	2.40	2.91	3.25	3.83	3.18	3.39	1.99	38.68
1894,	1.61	5.59	1.32	3.40	13.34	0.91	2.39	2.84	7.48	6.40	2.49	4.00	51.77
1895,	3.90	1.16	2.19	4.28	2.41	3.25	4.40	3.44	0.37	3.15	1.20	3.59	33.34
1896,	1.08	4.88	4.85	1.10	4.00	2.85	3.92	0.48	3.66	2.81	3.45	0.40	33.48
1897,	1.69	2.94	2.02	3.89	9.70	3.03	5.77	2.54	1.54	5.93	5.43	4.00	48.48
1898,	4.03	2.15	2.12	3.73	5.45	0.56	1.90	7.89	1.08	3.75	5.64	3.36	41.56
1899,	3.41	3.85	5.67	1.40	2.74	3.79	2.94	4.62	4.79	1.30	2.76	2.17	39.44
1900,	2.62	5.38	2.68	1.56	3.86	2.61	5.11	3.01	1.27	0.88	1.86	2.46	33.29
1901,	2.40	0.67	3.92	5.01	3.38	3.12	3.56	5.92	3.67	1.50	1.79	5.97	40.91
1902,	3.45	6.72	3.00	3.96	1.09	5.29	3.52	4.31	6.87	4.50	1.76	7.10	51.57
1903,	4.60	5.59	4.42	4.62	0.70	6.20	5.12	7.01	2.84	4.44	1.59	3.94	51.07
1904,	3.71	2.22	3.15	2.46	5.80	5.02	3.86	7.51	2.46	3.67	1.86	2.30	44.02
1905,	4.80	1.52	3.89	2.85	1.96	2.02	3.21	7.81	2.71	4.76	2.76	2.65	40.94
1906,	3.72	2.69	4.01	4.30	4.64	6.61	1.87	3.41	2.84	5.92	1.17	5.24	46.42
1907,	3.62	1.96	3.89	2.31	1.95	4.81	4.17	3.39	8.58	3.40	5.03	5.00	48.11
1908,	2.77	5.32	3.59	2.56	6.55	1.44	6.62	2.13	1.82	1.88	0.84	2.74	38.24
1909,	2.99	5.53	3.66	4.18	3.62	3.23	1.22	0.33	3.08	2.59	1.58	5.32	37.33
1910,	4.03	4.83	0.89	5.38	2.65	4.26	3.94	2.90	2.37	1.90	2.61	2.22	37.98
1911,	3.57	2.47	3.44	3.77	3.54	5.64	4.27	7.58	2.55	3.70	3.58	3.10	47.21

Reading, Berks Co.—(Elevation 269 feet)—Continued

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1912,	1.53	2.54	6.24	3.39	2.39	2.01	8.34	4.33	6.02	3.31	2.80	4.56	47.46
1913,	3.81	2.07	7.19	5.86	2.85	1.21	2.35	2.79	5.37	6.79	2.20	3.44	46.93
1914,	3.89	3.27	1.76	3.85	1.20	2.51	4.21	3.13	0.43	1.40	2.14	5.52	33.31
1915,	6.51	5.55	1.42	2.61	3.46	2.84	4.56	8.44	2.26	3.18	2.13	4.37	47.33
Means,	3.57	3.66	3.62	3.30	3.85	3.45	4.36	4.30	3.32	3.57	2.90	3.47	43.37

Reedsville, Mifflin Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1897,	....	....	....	....	....	....	....	....	....	1.13	2.37	1.28	....
1898,	1.32	....	2.46	....	....	....	1.13	9.98	....	....	2.11	....	....
1899,	....	4.03	5.87	....	....	....	....	2.09	....	....	....	....	....

Renovo, Clinton Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	....	....	....	....	....	....	....	4.12	5.49	4.15	2.34	0.86	....
1897,	2.01	2.41	3.03	2.64	4.41	2.59	4.80	3.79	3.69	1.00	4.82	3.54	38.73
1898,	3.80	1.71	5.53	3.25	3.18	4.36	4.43	5.21	0.59	5.68	2.53	2.97	43.24
1899,	2.65	2.85	3.97	2.08	3.43	2.85	3.13	1.40	4.61	1.23	3.93	3.60	35.73
1900,	2.62	3.18	4.80	0.80	2.67	3.91	1.81	4.68	1.34	3.88	5.73	1.57	36.99
1901,	1.37	0.91	3.22	5.71	5.58	5.77	2.75	7.99	3.21	0.75	2.62	4.99	44.87
1902,	....	....	....	2.61	1.47	....	7.79	1.41	3.48	2.77	0.79	3.75	....
1903,	3.02	3.89	4.59	3.05	....	....	4.48	5.41	2.01	....	3.74	1.97	....
Means,	2.58	2.49	4.19	2.88	3.46	3.90	4.17	4.25	3.05	2.78	3.31	2.91	39.97

Renovo, Clinton Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	2.12	3.36	2.87	1.25	2.31	7.32	5.17	4.47	5.59	4.21	2.49	0.74	41.90
1897,	1.75	2.31	2.90	2.86	4.64	2.79	5.73	4.28	3.96	1.09	4.95	3.01	40.27
1898,	3.22	1.41	5.49	3.04	3.12	4.76	4.39	5.96	0.48	6.02	3.18	2.73	43.79
1899,	1.92	2.08	2.80	1.60	3.47	2.87	3.11	1.46	4.00	0.54	3.67	3.33	30.84
1900,	2.61	3.52	3.95	0.82	2.66	3.23	1.88	4.65	1.22	4.36	4.40	1.70	35.00
1901,	1.58	0.85	3.46	6.22	5.46	6.01	3.31	7.30	3.48	0.78	2.65	4.86	45.96
1902,	2.23	1.65	3.25	2.84	1.43	4.71	8.90	1.51	3.57	2.68	0.89	4.55	38.21
1903,	2.78	3.60	4.45	2.77	1.76	6.07	4.70	5.47	2.10	3.60	3.64	1.56	42.50
1904,	3.86	2.53	5.17	4.06	3.11	....	....	....	....	....	....	....	....
1905,	....	....	....	....	....	....	....	....	2.12	3.96	2.00	4.07	....
1906,	2.03	0.53	3.90	2.38	3.22	2.36	4.96	2.70	2.26	4.08	1.15	2.98	32.56
1907,	3.74	1.24	1.79	1.91	2.46	6.00	2.58	1.12	4.91	2.84	2.00	1.85	32.44
1908,	3.38	4.70	3.34	2.89	8.34	0.58	2.15	2.86	1.30	0.86	0.80	2.01	33.21
1909,	2.04	3.20	2.02	6.79	1.90	6.30	1.18	2.12	2.05	2.21	0.83	2.66	33.30
1910,	5.30	3.68	0.60	7.07	2.62	2.96	4.18	2.52	5.62	1.28	1.80	2.34	39.97
1911,	2.56	1.46	0.88	2.52	1.00	4.58	1.74	6.04	4.56	3.48	1.39	3.08	33.29
1912,	1.41	3.64	3.09	3.83	3.30	1.26	4.05	5.52	4.97	2.42	2.20	2.19	37.88
1913,	4.92	1.23	4.81	4.23	3.31	2.07	6.59	2.18	1.89	6.20	3.15	3.20	43.78
1914,	2.48	3.17	2.43	4.66	5.03	3.35	1.51	2.56	0.66	3.12	1.95	3.30	34.22
1915,	6.81	2.99	1.30	1.17	3.81	2.75	5.23	5.93	2.68	3.65	2.01	3.60	41.93
Means,	2.99	2.48	3.08	3.31	3.31	3.89	3.96	3.81	3.02	3.02	2.38	2.83	38.08

Ridgway, Elk Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1890,	....	....	....	....	....	....	....	....	....	....	....	2.28	....
1891,	2.80	5.17	2.70	1.80	1.96	4.75	9.01	3.52	1.31	3.29	3.90	4.51	44.71
1892,	2.53	2.44	3.41	1.54	7.83	4.43	3.23	4.53	2.44	1.26	2.85	1.04	37.53
1893,	2.31	5.03	2.73	4.58	4.14	2.64	3.49	4.19	1.86	2.30	2.36	3.67	39.29
1894,	3.44	2.36	1.53	3.12	8.33	2.19	1.68	1.12	5.73	2.38	1.65	3.23	36.76
1895,	3.84	1.06	1.52	3.35	2.51	3.63	2.57	2.52	2.20	0.77	2.95	3.00	29.92
1896,	1.76	2.75	3.21	2.56	2.66	5.57	7.39	2.45	5.44	2.91	2.41	1.35	40.46
1897,	1.72	2.13	3.49	3.57	3.81	2.88	6.70	2.80	2.55	0.59	4.45	3.46	38.15
1898,	5.04	1.37	6.87	1.89	3.78	3.01	1.87	7.13	1.16	5.31	2.59	2.17	42.19
1899,	2.04	1.85	4.03	1.74	3.86	3.68	3.81	3.84	3.46	....	....	....	....
1913,	....	2.06	6.00	2.72	3.83	3.43	6.36	2.06	3.05	4.06	4.15	....	....
1914,	2.51	2.31	3.08	5.24	5.34	3.08	1.10	....	....	....	m1.05	3.52	....
1915,	5.38	3.00	1.38	0.80	3.78	4.87	4.90	5.16	2.76	2.81	2.05	4.02	40.91
Means,	3.03	2.63	3.33	2.74	4.32	3.68	4.34	3.57	2.91	2.57	2.76	2.93	38.81

Sadsburyville, Chester Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1911,	3.49	2.13	3.34	4.05	1.25	....	4.51	10.61	3.73	4.53	4.28	3.98	....
1912,	2.14	2.79	7.32	....	4.95	3.53	3.94	3.74	6.72	3.39	2.79	4.77	....
1913,	4.03	2.31	5.51	7.96	4.10	1.62	4.98	4.78	2.69	5.38	2.62	2.64	48.62
1914,	4.96	3.27	2.66	4.05	2.03	2.67	10.07	3.62	0.88	1.49	2.61	5.22	43.02
1915,	6.13	5.90	1.57	2.17	4.80	6.19	2.98	10.64	2.59	2.26	2.29	4.44	51.96

Saegerstown, Crawford Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1891,	....	....	....	....	....	....	....	....	....	....	....	4.09	....
1892,	5.00	4.24	2.27	1.73	8.95	7.73	3.50	4.76	3.44	2.93	3.97	2.90	51.42
1893,	4.06	8.23	2.94	4.43	8.89	3.25	2.13	5.20	0.72	3.00	3.04	3.71	49.60
1894,	2.57	2.70	1.74	2.55	4.92	1.69	1.47	0.98	6.14	2.31	2.61	2.39	31.97
1895,	3.92	2.38	1.14	1.40	3.60	0.69	3.15	6.03	5.41	1.58	4.21	4.44	37.95
1896,	1.33	4.10	3.42	2.95	1.66	6.97	5.48	3.29	4.31	2.25	3.71	2.01	41.48
1897,	3.26	2.41	3.59	2.22	3.95	3.58	14.51	6.63	1.65	0.50	6.51	3.49	52.20
1898,	4.57	3.02	4.60	2.08	4.00	5.12	3.62	8.25	3.31	4.20	4.78	3.09	50.64
1899,	2.67	2.03	3.63	1.34	5.95	2.14	5.84	0.54	5.25	0.79	2.05	5.30	37.53
1900,	2.71	6.96	2.81	1.58	2.78	3.13	4.77	1.74	2.81	2.87	5.95	2.89	41.00
1901,	2.52	1.74	5.21	4.83	4.62	5.63	2.25	7.15	6.53	1.28	3.80	3.33	48.89
1902,	2.43	1.49	2.41	4.21	4.36	6.11	9.28	1.91	3.61	3.99	2.03	4.11	45.94
1903,	2.88	4.58	4.44	3.44	2.71	4.85	5.54	8.05	1.48	5.07	2.98	2.61	48.63
1904,	4.60	3.28	6.46	3.92	6.22	3.90	4.54	3.52	3.61	3.15	1.25	2.43	46.88
1905,	2.14	1.97	2.47	3.07	4.01	4.71	5.17	6.04	3.02	4.08	3.29	2.35	42.32
1906,	1.63	1.22	3.57	3.21	3.08	5.64	3.28	3.17	6.57	6.71	2.93	3.93	44.94
1907,	5.29	1.42	3.80	3.10	3.75	7.49	3.75	2.67	5.35	4.56	3.80	3.94	48.92
1908,	3.03	4.48	4.16	4.13	7.23	2.90	3.36	1.22	0.79	1.40	1.76	4.32	38.78
1909,	3.30	4.79	2.89	5.49	3.88	7.97	2.64	2.82	2.18	1.73	*2.18	2.36	*42.23
1910,	5.54	*3.93	0.68	*3.68	3.37	1.73	4.83	1.83	4.05	5.23	5.50	3.46	*43.83
1911,	3.06	3.04	2.80	3.11	2.88	3.39	1.41	6.04	7.08	5.01	3.24	4.20	45.26
1912,	3.72	1.57	3.09	5.66	3.96	3.75	3.16	4.86	2.47	4.07	1.56	2.71	40.58
1913,	7.19	2.15	9.01	3.21	2.33	3.57	5.64	2.03	2.63	5.88	3.59	1.44	48.67
1914,	3.56	1.71	2.81	4.87	5.44	3.51	2.18	4.64	1.94	4.06	2.72	3.50	40.94
1915,	4.54	3.41	1.04	1.07	4.14	2.51	6.55	8.03	2.63	3.36	4.31	4.78	46.37
Means,	3.58	3.20	3.36	3.22	4.44	4.24	4.50	4.23	3.62	3.33	3.41	3.35	44.48

Note: *Interpolated.

Salem Corners, Wayne Co.—(Elevation 1,600 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1869, ...	....	....	....	1.88	6.29	4.56	3.25	1.92	5.85	8.00	3.40	3.95	....
1870, ...	4.07	4.18	4.05	4.25	1.70	4.65	3.60	2.31	1.47	3.60	1.50	1.13	36.51
1871, ...	2.05	1.80	5.78	1.55	2.65	2.60	7.63	4.73	0.75	2.02	2.29	....	....
1888, ...	....	....	....	....	2.37	....	....	5.54	9.40	4.13	3.80	3.88	....
1889, ...	3.87	2.64	2.25	6.56	3.82	6.47	6.74	3.31	5.50	4.31	5.96	3.91	55.34
1890, ...	3.21	3.80	6.82	2.98	6.93	4.87	5.17	7.15	3.46	6.80	1.26	5.45	57.90
1891, ...	6.25	5.29	5.63	3.58	2.16	2.36	6.26	6.06	2.45	3.46	2.62	4.22	50.34
1892, ...	7.34	1.02	4.41	1.56	7.65	6.89	3.40	4.77	2.24	0.93	5.86	2.18	48.25
1893, ...	4.43	7.20	4.32	4.45	5.21	1.80	4.01	5.42	2.82	2.70	2.74	4.25	49.35
1894, ...	2.78	4.90	1.73	5.32	7.87	3.13	1.24	1.57	5.67	5.18	2.99	4.61	46.99
1895, ...	4.42	1.58	1.91	....	2.87	1.15	5.09	3.32	2.42	1.91	4.26	3.88	....
1896, ...	2.19	7.11	5.96	1.18	2.89	2.01	5.08	3.93	4.64	4.35	4.22	1.09	44.65
1897, ...	1.93	3.69	3.81	3.78	5.84	3.59	6.64	5.51	3.88	1.51	5.09	5.21	50.48
1898, ...	4.14	3.24	3.86	3.29	5.55	3.79	3.30	6.05	....	4.11	5.07	3.33	....
1899, ...	3.10	6.63	4.72	2.17	2.76	3.56	4.18	2.36	4.48	0.71	2.99	2.70	40.36
Means, ...	3.39	3.26	3.94	3.85	4.40	3.84	4.76	5.42	4.49	4.27	3.45	3.55	48.62

Saltsburg, Indiana Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	7.73	1.66	3.25	1.64	4.26	2.45	......	......	......	4.38	2.50	2.22	......
1889,	2.39	2.26	2.91	4.67	5.40	4.93	3.03	2.79	3.93	2.30	5.43	3.69	43.73
1890,	4.98	6.97	5.54	4.50	5.48	2.96	2.03	5.07	6.08	6.89	1.87	5.91	58.28
1891,	3.63	7.20	3.63	2.24	4.01	2.77	6.02	2.55	1.71	2.26	2.83	4.68	43.53
1892,	4.04	2.83	2.92	2.49	4.01	4.86	4.66	2.72	1.13	0.57	2.59	2.49	35.31
1893,	2.25	4.44	0.71	4.40	4.94	4.19	2.01	2.76	1.81	2.79	1.66	3.04	35.00
1894,	2.55	3.29	2.10	2.56	4.46	1.99	1.86	1.54	6.58	1.93	2.14	4.47	35.47
1895,	4.83	1.35	2.30	4.22	2.11	2.77	6.16	3.10	3.34	1.00	2.04	......	......
1901,	......	......	......	......	......	......	......	......	......	......	2.20	4.40	......
1902,	2.62	1.75	4.16	3.82	1.49	4.94	4.98	2.10	2.02	3.43	1.00	4.69	37.00
1903,	3.00	4.04	3.97	3.42	1.15	4.78	......	3.77	3.88	2.90	2.67	1.92	......
1904,	3.40	3.34	5.44	5.17	3.56	4.12	4.88	3.39	1.79	2.24	0.56	2.73	40.62
1905,	3.20	1.54	3.60	4.24	3.21	4.75	5.20	4.24	3.20	3.83	......	3.24	......
1906,	1.54	0.86	2.96	1.05	2.39	5.14	4.80	7.76	2.64	2.81	0.99	3.26	36.20
1907,	5.66	1.59	5.50	1.74	2.08	4.08	6.08	3.28	5.62	2.70	2.50	3.43	44.26
1908,	2.86	3.88	6.38	3.66	6.00	2.65	5.15	2.44	0.68	0.74	0.76	3.40	38.60
1909,	2.99	4.71	3.88	6.04	2.81	4.42	1.66	6.42	2.86	2.74	1.14	2.59	42.26
1910,	7.87	3.98	0.56	3.69	2.59	2.25	2.29	2.04	6.41	1.82	1.90	3.06	38.46
1911,	4.02	2.86	2.27	4.96	0.74	4.79	2.25	4.22	7.46	5.39	3.02	4.44	46.41
1912,	2.78	2.12	5.20	3.59	2.10	4.00	6.45	4.45	4.98	2.58	1.33	2.63	42.21
1913,	6.34	2.51	3.69	2.38	3.36	1.71	2.38	1.88	2.84	5.38	3.28	2.71	38.46
1914,	2.11	3.74	2.48	4.33	3.31	5.22	2.36	3.50	1.10	2.31	1.25	4.05	35.76
1915,	4.16	2.28	1.27	1.17	5.16	3.71	5.33	3.10	3.27	3.09	1.72	4.13	38.39
Means,	3.86	3.15	3.40	3.45	3.39	3.79	3.98	3.48	3.49	2.91	2.06	3.51	40.47

Schuylkill Haven, Schuylkill Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1880,	1.56	3.34	3.47	4.02	1.86	4.05	3.65	3.02	2.91	2.00	4.53	2.26	36.67
1881,	4.06	5.63	5.93	1.24	3.59	9.73	0.74	0.98	0.76	3.32	2.43	4.93	43.34
1882,	4.22	5.16	3.05	1.17	4.85	1.75	4.54	4.10	2.00	1.23	1.21	1.23	34.51
1883,	4.00	3.60	3.13	2.34	3.55	5.24	2.87	1.28	3.34	4.59	1.48	2.99	38.41
1884,	3.95	4.59	4.88	2.92	3.96	4.02	6.15	4.56	0.94	3.85	3.13	5.82	48.77
1885,	5.25	3.30	1.32	3.02	4.48	1.46	3.03	5.48	0.81	8.20	4.64	3.10	44.09
1886,	5.11	3.65	5.03	2.90	6.06	2.66	5.45	0.77	0.85	2.54	4.16	3.46	42.54
1887,	2.75	4.73	1.22	2.09	1.75	3.54	4.82	5.12	2.33	0.64	1.06	4.86	34.90
1888,	3.79	2.99	3.16	2.18	2.41	3.57	2.00	9.05	3.99	2.93	2.72	1.63	40.42
1889,	2.73	1.58	1.62	2.52	1.70	....	....	....	....	....	....	....	....
Means,	3.74	3.86	3.28	2.44	3.42	4.00	3.69	3.82	1.99	3.24	2.82	3.36	39.66

Note: Portion of this record furnished by the Schuylkill Navigation Co., Philadelphia, Pa.

Scranton, Lackawanna Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	....	....	....	....	....	2.75	....	....	5.11	5.48	4.36	2.35	....
1890,	....	....	....	2.85	4.77	....	....	....	....	....	....	....	....
1895,	....	....	....	....	....	....	....	....	2.21	2.45	1.74	3.32	....
1896,	0.78	4.91	4.78	0.97	3.52	1.98	4.81	2.50	2.33	4.83	3.13	....	....
1897,	1.46	2.73	2.99	3.41	4.82	3.43	5.00	2.57	1.20	1.10	4.14	3.64	36.51
1898,	3.59	2.41	3.50	2.47	4.47	2.20	2.69	3.72	2.47	3.07	3.34	2.27	36.20
1899,	3.03	6.30	4.46	1.96	2.73	2.66	4.73	3.62	3.47	0.63	2.11	2.10	37.80
1900,	2.13	2.75	2.98	1.81	2.81	3.54	4.63	1.27	1.72	2.66	2.37	2.61	31.28
1901,	1.17	1.34	3.23	3.44	5.58	1.82	4.12	6.88	2.35	1.11	2.58	5.64	39.28
1902,	2.14	4.73	3.14	2.27	1.61	6.69	4.60	3.28	6.23	4.94	1.06	4.36	45.05
1903,	2.73	3.54	4.40	2.55	0.90	7.73	4.89	6.03	1.27	6.42	1.86	2.59	44.97
1904,	3.23	0.92	2.10	2.32	2.17	3.46	5.94	4.69	3.33	3.80	1.51	3.71	37.18
1905,	4.41	1.61	4.13	1.93	1.25	3.26	2.62	5.27	3.23	3.12	1.56	2.38	34.77
1906,	1.37	2.59	4.48	4.25	2.68	5.32	1.93	1.76	2.00	3.71	2.09	3.28	35.46
1907,	2.92	1.60	2.09	1.02	1.44	3.30	2.67	1.82	7.11	2.88	3.06	4.63	34.53
1908,	2.27	4.40	3.62	2.97	4.02	1.71	2.92	3.44	2.03	2.29	0.75	2.17	32.59
1909,	2.86	4.16	2.68	5.20	4.28	5.85	2.23	1.22	1.80	1.86	1.33	3.39	36.86
1910,	4.32	3.94	0.77	3.41	2.96	3.05	1.09	2.57	4.45	0.85	5.64	3.36	36.34
1911,	2.67	1.90	1.99	2.85	2.26	4.90	2.88	6.84	2.90	4.00	1.86	2.36	37.41
1912,	2.55	1.57	7.02	3.78	1.44	1.67	2.11	4.91	6.94	2.75	3.75	4.07	42.56
1913,	2.50	1.60	5.00	3.63	2.27	1.34	4.97	2.54	3.87	3.99	2.83	2.16	36.70
1914,	2.11	5.23	5.05	3.89	3.29	3.05	6.71	2.56	1.05	1.05	1.12	4.19	39.30
1915,	4.09	2.70	1.21	1.65	3.30	3.27	2.60	8.17	2.91	1.13	1.37	4.66	37.06
Means,	2.62	3.05	3.48	2.79	2.98	3.48	3.71	3.78	3.18	2.91	2.43	3.30	37.71

Seisholtzville, Berks Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	....	....	....	6.22	4.54	7.91	11.76	4.15	7.32	5.17	9.70	1.53	....
1890,	2.94	4.39	6.69	3.23	5.99	2.61	6.01	6.37	4.07	5.60	1.08	1.98	50.96
1891,	7.00	3.17	6.05	2.11	2.37	3.39	7.75	7.18	3.25	3.83	2.35	4.85	53.30
1892,	5.97	1.46	5.33	1.61	5.13	1.83	3.80	2.93	2.38	0.61	6.73	2.35	40.13
1893,	1.57	5.84	3.16	4.20	6.21	2.22	2.32	6.41	3.19	3.19	3.95	2.51	44.80
1894,	2.03	4.32	1.40	3.96	13.06	4.32	1.88	1.72	5.69	7.48	2.96	4.58	52.41
1895,	4.40	2.18	2.76	7.09	3.15	2.87	4.88	2.88	1.01	3.75	1.92	3.59	40.48
1896,	1.09	6.11	4.59	1.81	4.69	3.83	10.86	1.75	5.18	5.40	5.77	0.83	51.90
1897,	2.28	2.73	2.47	3.53	8.58	3.12	5.61	3.27	2.02	2.04	6.99	4.48	47.12
1898,	4.33	3.01	2.40	4.04	6.23	1.30	2.84	5.24	1.83	5.90	7.03	3.28	47.43
1899,	4.13	4.33	6.06	2.53	3.51	4.68	8.24	3.69	9.31	*1.39	*2.82	1.75	*52.44
1900,*	*3.36	*5.29	*3.05	*1.96	*4.00	*3.13	*5.89	*3.75	*1.91	*2.33	*2.51	*2.62	*39.80
1901,	2.51	0.83	6.67	5.85	4.96	2.50	5.09	13.15	3.97	2.07	2.18	7.30	57.08
1902,	4.39	6.49	4.56	4.31	2.08	6.54	3.88	6.17	7.24	6.05	1.74	8.51	61.96
1903,	5.09	5.56	4.74	4.84	0.22	7.40	3.87	4.94	2.05	8.13	1.59	4.52	52.96
1904,	3.57	2.37	3.52	2.69	4.28	5.18	3.67	7.11	4.07	4.62	1.80	2.06	44.94
1905,	5.03	1.58	3.47	2.19	0.67	2.07	3.60	10.83	5.87	4.38	2.82	3.08	45.59
1906,	3.11	2.65	5.08	3.92	3.97	5.56	2.47	5.35	1.30	6.89	1.27	5.35	46.92
1907,	3.49	2.19	3.16	1.96	2.55	5.10	3.69	3.22	9.19	4.27	5.77	5.06	49.64
1908,	2.94	6.03	3.28	2.84	6.12	1.16	5.45	2.88	2.03	3.79	0.86	2.48	39.86
1909,	3.20	6.10	4.26	4.96	2.95	2.46	1.57	1.10	2.27	1.31	1.40	5.66	37.24
1910,	4.44	4.07	0.68	5.60	2.97	4.09	0.56	6.71	2.86	2.15	3.30	2.32	39.74
1911,	3.25	2.35	3.68	4.17	2.41	5.57	5.24	6.69	2.64	6.23	4.22	3.35	49.70
1912,	1.91	2.58	6.94	4.06	3.96	2.42	5.47	3.98	7.04	2.91	3.26	5.21	49.73
1913,	4.10	1.86	7.68	7.81	2.78	1.18	3.42	3.95	4.82	6.46	2.70	4.49	51.25
Means,	3.59	3.64	4.24	3.86	4.29	3.70	4.75	5.02	4.09	4.20	3.47	3.79	48.64

Note: *Interpolated.

Selinsgrove, Snyder Co.—(Elevation 455 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	....	....	....	....	....	....	....	10.12	5.35	....	2.40	3.09	....
1889,	4.00	1.52	2.60	3.02	9.20	5.10	4.29	6.00	5.16	3.65	9.13	2.66	56.33
1890,	1.02	....	....	4.11	3.56	1.36	3.58	5.81	3.13	6.97	1.54	4.38	....
1891,	8.59	3.09	8.39	1.82	1.36	4.74	6.69	7.18	4.12	4.46	3.85	3.97	58.26
1892,	5.13	0.88	3.92	1.60	6.25	8.18	4.77	3.17	3.29	0.37	4.30	1.90	43.76
1893,	2.78	5.63	3.57	4.64	6.85	4.44	2.32	4.07	3.12	4.21	2.45	2.48	46.56
1894,	0.83	3.87	1.09	4.86	10.03	2.40	1.20	2.47	4.25	5.58	2.08	3.76	42.42
1895,	*2.79	1.26	2.92	2.55	3.26	3.39	2.54	4.58	1.53	1.80	1.50	3.06	*31.18
1896,	0.90	5.71	4.04	1.16	2.40	2.49	6.36	2.18	3.81	4.36	3.47	0.73	37.61
1897,	1.85	3.26	3.74	3.25	4.74	2.62	5.08	1.88	2.56	1.89	6.35	3.56	40.78
1898,	4.08	2.06	3.87	2.98	5.28	1.61	5.63	6.86	0.91	6.22	2.90	2.72	45.12
1899,	1.76	4.87	4.58	1.37	4.45	4.04	2.42	4.63	4.72	1.53	3.26	2.61	40.24
1900,	2.69	3.59	3.69	1.16	0.72	2.09	3.74	2.38	1.59	3.65	3.89	2.18	31.28
1901,	2.03	0.80	4.11	3.73	7.73	2.50	5.59	8.50	3.52	1.34	1.66	4.84	46.35
1902,	3.28	3.23	5.08	3.23	0.94	8.11	4.79	1.69	5.16	4.90	1.54	4.26	46.21
1903,	4.20	4.84	3.29	4.39	1.28	7.57	4.39	4.91	3.01	3.72	1.53	3.98	47.11
1904,	3.99	3.76	3.36	3.70	6.27	3.02	5.04	2.53	4.68	2.40	0.70	2.45	41.90
1905,	4.29	1.50	5.36	2.10	2.02	3.00	3.26	6.03	2.67	3.79	2.40	3.69	40.11
1906,	3.09	2.02	4.57	4.17	3.20	6.81	4.67	3.44	2.15	5.25	1.04	4.14	44.55
1907,	3.26	1.50	3.89	1.96	3.30	4.80	2.41	3.38	5.95	3.86	3.02	6.77	44.10
1908,	1.46	4.68	5.04	3.45	6.41	1.72	9.45	3.14	1.92	3.10	0.43	1.84	42.64
1909,	3.05	5.25	2.41	6.50	2.83	4.99	1.12	1.74	1.89	2.05	1.21	2.64	35.68
1910,	5.57	2.95	0.35	6.72	5.27	8.21	0.66	2.59	5.66	1.53	2.39	1.71	43.61
1911,	2.64	2.01	1.96	3.42	2.59	3.47	3.23	8.98	4.96	6.63	2.11	3.27	45.27
1912,	0.87	2.09	5.51	4.73	4.66	2.20	8.64	4.78	9.26	2.46	3.76	4.01	52.97
1913,	3.77	1.22	4.85	5.81	3.36	4.07	7.00	1.60	3.41	5.05	2.26	3.05	45.45
1914,	3.54	2.61	2.74	6.05	3.42	4.79	6.32	2.77	0.45	1.83	1.34	3.08	38.62
1915,	4.96	4.16	1.00	3.80	4.02	4.29	4.77	7.19	2.51	1.91	1.86	3.53	44.00
Means,	3.20	3.01	3.69	3.57	4.27	4.15	4.44	4.45	3.60	3.50	2.66	3.23	43.77

Note: *Interpolated.

Shamokin, Northumberland Co.—(Elevation 750 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1857,	2.96	1.90	2.50	6.24	10.60	9.76	6.05	4.08	1.91	2.69	2.41	5.91	57.01
1858,	1.80	0.86	0.95	3.06	7.30	2.91	5.68	3.76	1.58	2.70	3.79	4.12	38.51
1859,	3.06	2.78	5.19	3.62	2.50	3.03	3.02	5.83	5.85	1.61	2.46	3.03	41.98
1860,	2.11	2.09	2.66	4.37	10.44	4.46	1.97	6.66	1.91	4.37	4.76	2.11	47.91
1861,	2.96	2.08	3.48	4.66	3.54	2.99	3.80	6.35	6.22	5.13	4.33	0.64	46.18
1862,	4.45	1.12	2.44	3.19	1.90	10.28	4.00	2.69	1.50	4.29	2.65	1.06	39.56
Means,	2.89	1.80	2.87	4.19	6.05	5.57	4.09	4.90	3.16	3.46	3.40	2.81	45.19

Shamokin, Northumberland Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1908,	2.55	5.49	3.66	2.09	4.47	1.44	8.69	3.22	1.71	2.39	0.68	2.26	38.65
1909,	1.95	5.60	2.79	6.12	2.99	2.81	1.02	0.36	2.32	2.53	1.67	2.44	32.60
1910,	5.58	4.69	0.63	5.41	4.07	6.40	1.52	4.00	4.90	1.17	2.76	2.30	43.43
1911,	3.62	1.72	2.53	2.49	1.61	3.04	3.18	9.50	4.10	6.54	2.52	2.77	43.62
1912,	1.57	2.00	5.44	5.12	3.74	1.97	4.60	5.93	5.03	2.74	1.82	4.68	44.64
1913,	4.47	2.36	6.04	5.19	2.84	1.91	6.46	2.30	3.66	5.13	1.50	3.82	45.68
1914,	2.69	2.95	2.50	4.82	2.44	5.46	7.19	4.30	1.89	1.47	0.96	5.08	41.75
1915,	5.06	4.09	1.11	2.73	3.14	2.88	4.34	8.08	2.69	1.22	1.73	4.88	41.95
Means,	3.44	3.61	3.09	4.25	3.16	3.24	4.62	4.71	3.29	2.90	1.70	3.53	41.54

Note: Furnished by Roaring Creek Water Company, Shamokin, Pa.

Sharon, Mercer Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1912,	....	....	....	5.14	1.94	3.38	6.74	7.39	2.87	3.09	1.03	2.13	....
1913,	5.90	1.81	7.02	2.09	2.47	2.46	3.95	3.96	1.36	5.57	2.75	1.30	40.64
1914,	2.07	1.47	2.26	5.84	3.81	3.05	1.60	2.65	1.05	2.90	1.52	3.39	31.61
1915,	2.89	2.49	1.15	1.46	2.37	4.12	5.15	4.33	3.00	1.83	1.77	2.84	33.40

Shawmont, Philadelphia Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	....	....	4.59	0.96	2.09	4.04	3.26	1.14	4.71	2.96	3.42	2.00	....
1897,	2.94	3.18	2.11	2.84	5.54	5.59	11.45	3.60	1.60	2.10	5.22	3.87	50.04
1898,	3.97	2.73	2.55	2.56	4.97	2.36	5.20	6.18	1.66	4.44	5.93	3.36	45.91
1899,	3.86	5.48	6.37	1.32	2.18	1.96	3.84	3.56	4.12	1.83	2.32	1.35	38.19
1900,	2.92	3.97	2.78	1.70	7.04	2.14	4.56	4.26	5.36	2.55	2.42	2.28	41.98
1901,	2.59	0.69	3.95	4.21	4.02	1.48	3.61	8.53	3.73	1.29	2.82	6.87	43.79
1902,	2.09	5.09	3.59	3.06	1.73	5.10	4.52	2.90	4.31	6.29	1.75	6.39	46.82
1903,	3.99	4.45	4.16	3.81	0.63	4.89	5.83	3.84	2.99	6.25	1.01	4.11	45.96
1904,	3.07	2.30	3.23	1.34	2.62	2.90	2.11	9.26	3.65	4.37	1.91	1.88	38.64
1905,	2.99	2.16	3.54	2.70	2.18	1.94	3.79	7.24	3.37	3.69	1.76	3.34	38.70
1906,	2.64	2.43	4.92	3.16	2.80	7.02	7.31	7.48	0.44	5.12	1.51	3.83	48.65
1907,	2.97	2.21	2.42	2.52	4.33	3.88	3.39	3.35	6.24	4.59	5.84	5.15	46.89
1908,	3.09	4.14	3.66	3.11	5.76	1.53	3.25	4.52	2.37	2.26	1.07	3.78	38.54
1909,	2.72	5.34	3.60	3.96	3.42	3.52	1.68	2.80	3.72	0.99	2.38	4.73	38.86
1910,	4.19	2.78	0.65	5.04	2.26	5.13	0.80	10.37	2.27	3.58	2.67	2.48	42.22
1911,	3.19	2.58	3.13	4.09	1.69	4.92	2.62	12.85	2.61	4.23	5.18	3.52	50.64
1912,	1.95	3.48	8.72	3.30	3.40	1.41	3.60	4.03	5.39	4.00	4.83	4.78	48.89
1913,	3.65	2.20	5.09	7.11	3.74	1.58	2.60	4.60	3.91	6.10	3.18	3.68	47.47
1914,	3.62	2.84	2.75	3.18	1.92	1.82	7.77	1.18	0.30	1.94	2.14	5.92	35.38
1915,	5.94	6.95	1.20	3.78	4.92	2.72	6.93	8.04	0.86	3.75	1.52	3.40	50.01
Means,	3.28	3.42	3.65	3.19	3.36	3.31	4.40	5.49	3.18	3.62	2.94	3.84	43.68

Shinglehouse, Potter Co.—(Elevation 1,475 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1893,	....	....	....	....	....	....	....	....	....	....	2.26	4.13	....
1894,	4.64	3.02	1.84	5.61	8.94	3.36	3.46	2.50	5.96	3.33	2.42	3.21	48.29
1895,	1.81	1.00	1.58	1.81	2.65	5.03	1.30	....	3.00	1.06	3.81	3.80	....
1896,	2.40	3.36	2.70	1.34	5.22	3.96	6.14	....	6.83	3.80	2.87	2.00	....
1897,	2.43	1.44	3.63	2.87	3.20	3.49	5.12	2.31	2.49	0.82	6.41	3.14	37.35
1898,	3.27	1.24	3.39	1.98	5.07	4.04	2.06	8.13	1.94	2.98	4.00	2.35	40.45
1899,	1.18	....	1.91	1.74	....	3.61	5.04	3.74	3.13	2.38	1.42	....	....
1901,	....	....	....	4.01	5.18	2.76	2.67	5.47	3.32	....	....	....	....
Means,	2.62	2.01	2.51	2.77	5.04	3.75	3.68	4.43	3.81	2.40	3.31	2.66	38.99

Shippensburg, Cumberland Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1911,	....	....	....	....	....	2.68	3.87	7.56	6.18	3.37	....	3.50	....
1912,	1.97	3.19	....	....	....	....	....	....	4.04	1.18	1.52	3.61	....
1913,	3.18	2.07	5.41	3.81	4.15	1.00	2.40	2.79	3.34	9.62	1.87	3.65	43.29
1914,	3.40	3.78	1.65	4.09	3.04	3.20	2.21	2.18	0.84	0.90	1.04	2.50	28.83
1915,	5.10	4.23	0.98	2.15	4.27	1.68	2.17	7.26	3.53	....	....	....	....

Smethport, McKean Co.—(Elevation 1,493 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1839,	....	2.83	3.32	1.46	4.39	5.48	7.37	1.46	2.85	0.42	2.36	7.30	....
1840,	1.53	2.17	5.07	2.74	2.48	3.94	2.40	5.10	2.93	3.58	2.33	2.30	36.67
1841,	4.60	0.96	....	....	1.32	....	2.26	2.41	....	....	....	....	....
1888,	....	....	....	....	....	5.02	1.41	6.78	3.63	7.66	4.01	2.21	....
1889,	....	2.72	....	....	9.21	5.93	....	....	....	....	....	....	....
1891,	....	....	....	....	....	5.66	8.14	5.15	2.15	....	....	....	....
1893,	....	....	....	4.60	4.90	3.68	3.56	4.15	2.92	3.65	2.83	6.07	....
1894,	4.20	3.35	1.86	4.22	11.33	3.65	2.03	3.15	6.32	3.37	2.52	3.45	49.46
1895,	4.10	1.10	2.35	2.46	2.12	4.00	2.83	3.27	2.08	0.83	3.45	3.85	32.44
1896,	1.60	3.55	4.23	1.88	3.34	5.38	7.19	2.27	6.82	3.52	2.41	1.85	44.04
1897,	1.60	2.75	4.22	3.43	2.90	2.95	....	3.25	....	0.65	5.93	3.25	....
1898,	3.42	1.35	5.57	2.35	4.59	4.50	2.30	6.08	2.40	4.95	4.00	2.10	43.61
1899,	2.30	2.85	3.60	1.40	5.33	2.68	5.40	1.70	....	2.58	1.88	....	....
1900,	2.52	1.00	3.65	1.25	1.88	1.98	3.65	2.90	1.67	5.10	4.65	0.40	30.65
1901,	2.40	0.60	4.10	5.70	5.16	3.73	4.70	5.64	5.27	1.10	4.50	4.45	47.35
1902,	....	1.80	2.35	2.75	3.30	....	9.33	1.25	2.23	2.12	2.75	....	....
1903,	4.20	4.90	4.00	2.49	2.70	....	....	6.14	3.40	3.11	3.23	1.61	....
1904,	....	....	3.55	2.34	4.30	3.45	4.29	6.66	6.36	2.81	0.75	1.85	....
Means,	2.95	2.28	3.68	2.79	4.32	4.14	4.46	3.96	3.65	3.03	3.17	3.13	41.56

Smiths Corners, Bucks Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	4.19	2.22	3.35	5.02	4.75	7.54	12.30	4.88	8.07	4.99	9.00	2.36	68.67
1890,	2.93	4.38	6.71	2.46	5.29	3.59	5.46	5.75	2.68	5.99	0.98	2.66	49.18
1891,	5.58	4.51	3.95	1.75	2.81	2.48	7.45	10.18	1.29	4.37	1.72	4.71	50.80
1892,	5.23	1.25	3.56	1.96	5.81	3.22	4.25	3.38	3.19	0.45	7.58	1.69	41.57
1893,	2.98	5.63	2.24	5.08	4.64	5.08	2.00	8.63	3.09	4.32	4.47	3.39	51.55
1894,	1.79	3.47	1.71	2.94	13.09	1.95	2.63	1.83	11.61	5.23	3.07	4.06	53.38
1895,	4.47	0.77	3.02	5.60	2.85	5.51	3.51	4.94	0.70	3.99	1.88	2.56	39.80
1896,	1.23	8.13	5.57	1.49	3.14	4.55	7.21	2.20	6.09	2.39	4.28	0.82	47.10
1897,	2.14	2.60	2.54	3.30	10.05	6.00	10.22	3.75	2.05	1.68	5.03	4.57	53.93
1898,	4.09	3.27	2.87	3.68	7.80	0.60	4.24	7.05	2.03	5.52	6.17	3.60	50.92
1899,	4.13	4.38	6.82	2.12	2.11	3.19	3.63	4.96	7.72	1.60	2.38	2.03	45.07
1901,	2.36	0.45	4.88	5.18	5.46	1.31	3.17	8.12	3.17	1.33	1.93	7.72	45.11
1902,	2.93	4.28	3.50	3.46	1.77	5.03	5.57	2.87	6.68	6.41	1.72	6.57	50.79
1903,	4.02	4.37	4.59	4.71	0.22	7.26	6.76	5.16	2.93	9.18	1.45	3.50	54.15
1904,	3.21	2.18	3.21	2.68	3.32	3.87	4.34	6.82	6.35	3.96	1.57	2.03	43.54
1905,	4.32	1.87	3.65	3.07	0.77	2.64	3.85	10.01	4.60	3.83	2.91	3.33	44.85
1906,	3.13	2.18	3.78	3.52	5.38	5.07	4.54	3.28	0.92	5.66	1.35	4.94	43.76
1907,	3.50	1.44	3.03	3.09	2.33	4.86	2.94	4.74	11.25	5.54	5.24	4.47	52.43
1908,	3.32	5.17	4.21	3.13	8.03	2.42	3.71	5.07	2.49	3.85	0.89	2.58	44.87
1909,	2.63	5.17	3.11	5.52	3.47	3.48	1.97	3.21	2.21	1.13	3.50	4.21	39.61
1910,	4.40	3.99	0.98	7.23	3.89	4.63	0.41	4.99	3.89	2.48	3.56	1.87	42.32
1911,	3.57	2.05	3.35	4.05	2.57	4.17	5.90	8.79	2.51	5.98	4.72	3.70	51.34
1912,	1.69	2.29	8.42	4.15	3.14	2.41	4.69	5.12	5.91	4.77	3.96	5.08	51.61
1913,	3.47	2.16	5.51	7.10	2.85	0.96	3.41	4.46	6.30	7.82	3.52	2.85	50.40
Means,	3.39	3.26	3.94	3.85	4.40	3.84	4.76	5.42	4.49	4.27	3.45	3.55	48.62

Somerset, Somerset Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1840,	2.10	1.71	1.86	4.70	3.97	3.06	3.35	3.41	1.55	2.97	1.67	3.04	33.39
1841,	2.08	1.00	2.17	2.54	3.83	5.50	2.43	0.80	3.38	1.96	3.00	3.66	32.35
1846,	4.51	3.70	1.88	2.96	6.61	6.80	3.03	3.54	3.06	3.11	4.23	1.10	44.52
1856,	....	....	....	....	3.29	3.95	1.54	4.24	6.56	2.43	3.40	1.62	....
1857,	....	....	....	....	....	....	2.96	5.13	3.28	3.31	2.38	4.28	....
1858,	0.98	2.22	1.13	3.96	8.39	4.03	3.07	1.32	1.34	2.06	3.91	4.94	37.35
1859,	1.66	4.39	3.28	5.54	1.66	3.86	1.76	3.71	4.68	1.16	1.26	3.90	36.86
1860,	2.68	1.67	1.57	5.78	6.73	3.18	5.16	5.12	2.57	5.44	6.09	3.33	49.32
1861,	2.80	1.71	2.09	4.34	4.04	2.42	3.60	3.52	5.45	3.94	5.01	1.15	40.07
1888,	6.40	1.34	3.25	2.54	5.85	2.76	4.30	7.68	3.26	5.47	2.74	2.21	47.80
1889,	3.48	3.13	2.52	4.56	8.32	3.87	5.06	3.35	2.94	2.61	7.22	4.29	51.34
1890,	5.60	4.51	5.42	3.16	8.90	4.93	2.36	7.90	7.84	7.12	3.00	5.52	66.26
1891,	5.51	5.50	5.37	1.13	4.10	5.20	4.68	5.02	4.12	2.45	2.45	4.60	50.13
1892,	3.05	2.95	3.85	4.43	5.28	4.40	3.97	2.09	1.42	0.32	6.17	3.32	41.25
1893,	3.68	8.38	1.67	5.46	7.30	2.02	3.37	3.93	3.26	3.02	1.16	1.75	45.00
1894,	3.19	5.20	1.85	10.00	14.33	3.32	3.50	1.06	3.12	3.20	2.70	5.69	57.15
1895,	6.36	1.56	3.34	2.58	1.88	2.80	2.94	2.79	0.50	1.18	2.66	2.89	31.48
1896,	1.71	4.24	4.72	3.27	3.01	7.68	10.55	1.75	6.50	2.72	3.84	2.62	52.61
1897,	3.01	6.67	5.86	3.99	4.65	2.56	4.89	3.11	1.38	0.32	5.86	6.50	47.80
1898,	6.87	3.11	5.38	4.51	3.91	2.44	4.72	9.31	1.87	5.37	2.91	4.79	55.19
1899,	4.20	4.39	5.76	2.83	4.96	4.45	4.60	4.71	7.18	2.79	2.21	3.05	51.13
1900,	3.44	5.69	7.31	2.80	3.67	10.29	4.31	4.80	0.60	2.15	6.46	4.16	55.68
1901,	4.41	2.58	7.21	7.85	7.23	3.73	4.60	4.98	3.83	0.90	2.63	5.49	55.44
1902,	5.15	5.65	7.50	7.14	3.85	4.45	4.74	2.72	1.69	4.25	2.44	6.81	56.39
1903,	4.13	5.16	4.84	4.52	2.12	7.25	4.80	3.93	1.30	2.99	1.62	2.54	45.20
1904,	5.82	4.29	6.10	5.81	3.46	6.28	7.44	2.36	2.72	1.91	1.80	3.47	50.44
1905,	4.80	2.07	3.90	4.46	4.84	8.35	6.19	9.57	2.35	5.29	3.06	4.51	59.38
1906,	5.28	1.79	7.35	3.26	2.85	6.53	4.60	11.17	3.57	2.47	3.08	4.75	56.70
1907,	7.77	3.26	7.28	4.42	5.00	7.60	6.24	5.05	5.02	1.77	6.22	4.42	64.05
1908,	5.33	7.72	7.50	5.25	7.26	3.12	5.17	1.80	0.91	0.55	1.97	3.29	49.87
1909,	3.63	4.87	3.68	4.62	1.97	5.52	2.44	5.22	2.41	2.36	1.35	3.69	41.76
1910,	8.91	4.09	0.99	4.89	3.34	8.68	2.65	2.40	2.75	1.58	2.35	4.41	47.04
1911,	6.36	3.48	4.75	5.85	3.86	7.21	5.19	6.71	10.18	4.77	2.92	2.69	63.93
1912,	2.90	2.25	5.82	4.95	4.53	6.00	6.86	6.77	11.43	1.55	3.17	4.72	60.95
1913,	6.38	2.63	3.62	3.05	5.33	2.86	4.05	1.91	6.15	5.44	4.14	4.11	49.67
1914,	4.98	6.20	4.91	7.50	2.62	7.05	2.77	3.87	0.83	3.30	2.95	7.35	54.33
1915,	9.19	3.47	2.04	2.97	7.04	5.64	6.46	5.73	3.63	4.68	2.59	6.17	59.61
Means,	4.67	3.94	4.33	4.56	5.06	5.04	4 42	4.52	3.71	2.97	3.37	3.98	50.57

Note: 1840 and 1841 are evidently not made with a standard rain gage as amounts are much too small for this locality. The chief value of this old record is **in the probability that the amounts are relative or proportionate.** 1840 and 1841 not included in the means.

South Bethlehem, Northampton Co.—(Elevation 339 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1885,	5.71	6.23	2.04	3.76	2.34	0.97	3.48	8.64	0.64	5.54	3.66	....	....
1886,	....	4.41	4.06	2.98	5.59	4.53	3.52	2.15	1.77	2.18	5.44	3.66	....
1887,	3.62	5.47	2.59	2.64	2.79	4.87	8.58	3.47	2.78	1.12	1.32	....	....
1902,	3.07	6.89	5.03	3.37	1.07	6.75	4.10	5.82	6.32	5.90	1.64	8.39	58.35
1903,	5.03	5.49	4.87	4.59	0.45	11.76	7.85	4.88	....	....	....	....	....
Means,	....	5.70	3.72	3.47	2.45	5.78	5.51	4.99	....	....	....	....	....

South Eaton, Wyoming Co.—(Elevation 660 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	....	....	....	....	....	....	....	....	3.33	4.11	5.52	2.32	....
1890,	1.60	3.09	4.46	1.81	7.47	2.81	2.72	7.53	2.05	5.18	0.78	3.31	42.81
1891,	5.47	3.48	4.54	2.85	1.66	2.17	4.88	4.15	1.35	3.71	2.84	3.88	40.38
1892,	5.38	0.91	4.53	1.20	5.49	4.60	3.14	2.85	2.97	0.77	2.88	0.86	35.48
1893,	2.69	5.49	3.03	3.53	5.13	2.98	3.83	5.41	2.21	1.88	1.94	2.46	40.57
1894,	1.65	2.79	0.80	2.76	7.26	1.09	1.98	2.22	3.69	6.50	2.27	3.41	36.42
1895,	2.35	1.33	1.62	3.60	3.40	4.50	2.81	2.07	1.68	2.26	2.44	4.26	32.32
1896,	0.52	4.11	4.45	1.13	2.86	2.62	4.66	3.06	2.45	4.94	4.16	1.11	36.07
1897,	1.89	2.49	2.40	3.11	5.29	3.92	3.38	3.23	2.24	1.12	3.96	4.13	37.16
1898,	3.93	1.43	3.16	2.73	3.67	1.63	1.64	6.30	1.90	4.49	3.27	2.02	36.17
1899,	1.98	3.58	3.96	2.30	2.24	2.58	2.39	3.38	2.16	1.16	2.71	2.81	31.25
1900,	2.10	3.47	3.75	0.97	1.97	3.52	4.09	1.93	1.84	1.98	3.21	2.17	31.00
1901,	0.92	0.81	3.73	4.21	6.70	3.01	5.32	5.76	2.66	1.94	1.69	6.16	42.91
1902,	1.42	5.26	4.06	2.22	1.34	6.61	5.41	2.27	8.15	7.05	1.00	6.09	50.88
1903,	2.78	4.53	4.83	3.39	1.31	6.74	3.86	6.19	1.93	5.23	2.09	3.85	46.63
1904,	2.97	1.67	2.56	3.21	3.00	3.74	5.94	3.40	3.71	3.54	1.06	1.90	36.70
1905,	3.52	1.31	4.45	1.85	1.59	2.35	3.42	5.43	4.66	3.51	1.51	2.83	36.42
1906,	1.97	3.07	5.71	3.67	3.87	6.61	3.72	4.15	2.63	4.28	1.58	3.88	46.14
1907,	2.64	1.70	1.46	1.25	2.27	5.27	4.35	1.59	5.55	3.86	3.65	5.28	38.87
1908,	2.34	4.87	4.40	2.52	5.62	2.76	3.45	1.21	1.38	....	....	....	....
Means,	2.53	2.89	3.67	2.54	3.76	3.65	3.74	3.80	2.93	3.55	2.56	3.30	38.82

South Sterling, Pike Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1913,	....	....	....	....	2.73	1.04	2.81	4.45	4.30	5.16	3.00	4.06	....
1914,	2.68	2.20	4.08	4.61	3.11	3.52	6.04	3.64	0.74	1.94	3.07	5.19	40.82
1915,	7.20	5.49	0.72	3.36	3.36	2.65	4.39	8.11	3.63	1.54	3.96	4.82	49.23

Note: This record furnished by L. B. Stillwell, Consulting Engineers, New York City.

Springdale, Allegheny Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1905,	....	....	3.67	3.32	3.72	7.28	5.72	3.45	3.16	4.14	2.97	3.84	....
1906,	2.61	1.35	3.47	2.10	2.82	3.89	5.12	7.41	5.25	4.01	1.36	3.31	42.70
1907,	5.87	1.35	6.20	2.30	2.76	4.19	5.09	2.85	4.15	2.82	2.11	3.47	43.16
1908,	2.00	3.01	6.91	3.88	5.88	2.65	3.52	4.16	1.18	0.95	0.66	3.03	37.83
1909,	3.16	4.91	3.83	5.34	2.48	5.28	2.19	2.14	1.56	2.35	1.03	2.53	36.80
1910,	6.36	4.34	0.79	2.97	2.84	2.95	2.14	2.30	4.54	2.20	1.70	2.64	35.77
1911,	4.11	2.34	1.90	5.13	2.34	5.11	1.18	5.80	9.52	5.63	2.80	4.21	50.07
1912,	2.03	1.76	4.95	3.64	2.08	5.92	8.46	3.60	4.18	2.26	1.16	3.44	43.48
1913,	6.45	2.32	5.24	3.26	5.39	1.49	5.12	1.55	2.18	4.21	2.64	2.89	42.74
1914,	2.26	3.53	2.38	4.26	3.21	4.05	2.77	6.68	0.75	2.24	0.97	4.56	37.65
1915,	4.20	2.80	1.28	1.57	4.73	5.69	4.19	4.38	1.34	2.87	2.51	4.13	39.69
Means,	3.90	2.77	3.69	3.43	3.48	4.41	4.14	4.03	3.44	3.06	1.81	3.46	41.62

State College, Center Co.—(Elevation 1,191 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1882,	....	....	....	....	....	....	....	....	3.64	2.20	0.96	1.22	....
1883,	2.69	3.42	1.90	2.08	4.22	6.24	....	2.18	2.31	2.13	1.49	2.12	....
1884,	3.27	3.56	4.29	1.73	2.37	1.67	3.08	1.65	....	....	1.70	2.17	....
1887,	1.25	5.15	1.68	2.23	2.11	3.65	4.68	2.10	3.69	0.46	1.44	2.25	30.09
1888,	3.46	1.72	2.85	2.79	6.26	2.61	2.78	6.16	3.12	3.76	2.71	2.07	40.29
1889,	1.97	1.34	2.51	3.65	4.98	5.87	4.68	3.15	3.67	3.36	6.48	3.29	44.97
1890,	2.78	4.31	3.85	3.75	6.77	2.34	2.44	5.46	2.29	5.24	1.46	3.19	43.88
1891,	4.11	5.29	4.07	1.47	1.94	4.24	5.65	5.40	2.20	4.38	2.98	4.08	45.81
1892,	3.98	1.73	3.78	2.09	5.79	7.36	3.26	5.78	2.24	0.28	3.62	1.07	40.98
1893,	1.94	5.71	1.88	5.13	6.46	3.94	4.10	3.14	2.22	3.23	3.04	2.42	43.21
1894,	1.75	3.39	1.14	3.85	9.45	4.60	2.10	2.23	5.76	3.14	1.59	3.14	42.16
1895,	4.18	0.22	1.03	2.23	2.21	6.74	3.11	3.70	1.75	1.03	1.74	2.75	30.69
1896,	1.40	4.10	2.82	1.47	1.37	5.02	5.56	1.56	5.02	3.29	3.11	1.04	35.76
1897,	2.21	3.19	4.53	3.73	4.13	2.03	5.69	3.39	3.60	1.45	5.36	2.18	43.44
1898,	4.40	1.14	5.63	2.29	4.28	3.53	2.95	4.70	0.93	6.51	2.28	3.07	41.71
1899,	2.60	3.42	4.23	1.71	4.77	2.41	2.14	2.76	3.84	1.40	3.06	2.53	34.87
1900,	1.65	3.39	3.81	1.93	2.30	2.54	3.[illegible]6	2.95	0.63	3.32	4.10	1.77	31.75
1901,	1.82	0.73	3.71	4.62	6.14	2.46	3.60	8.97	2.35	0.40	2.06	6.59	43.45
1902,	3.02	2.92	4.91	3.13	0.92	6.71	5.76	1.37	2.59	4.25	1.44	4.82	41.84
1903,	3.50	3.61	4.15	3.81	1.24	7.28	4.04	6.85	2.61	3.51	1.89	1.67	44.19
1904,	2.72	3.28	4.04	5.42	2.10	4.19	6.30	1.74	1.86	2.18	0.42	1.78	36.03
1905,	3.19	1.22	3.92	2.49	3.74	3.98	3.86	4.28	1.88	2.83	2.65	3.40	37.45
1906,	2.50	1.18	3.77	2.12	1.81	3.00	5.18	4.19	2.69	3.31	1.06	2.91	33.72
1907,	3.82	1.30	4.27	2.75	3.14	4.63	1.47	3.00	6.57	2.91	3.00	3.47	40.33
1908,	2.55	5.19	5.58	3.06	9.02	1.37	4.24	2.68	1.50	1.34	0.81	3.02	40.36
1909,	2.18	4.56	1.89	6.97	3.15	8.96	2.31	4.10	2.89	3.06	0.36	2.92	43.35
1910,	6.90	3.82	0.60	7.08	3.17	3.79	4.06	2.07	6.38	1.73	1.68	3.31	44.59
1911,	3.28	1.63	3.64	3.51	2.42	5.04	1.65	8.27	6.41	6.14	2.28	3.14	46.39
1912,	1.66	2.81	4.46	4.08	4.43	2.03	4.22	3.92	4.53	2.13	2.49	2.32	39.08
1913,	4.79	1.04	4.15	3.00	4.23	2.83	4.81	1.20	2.29	4.66	3.05	2.88	38.93
1914,	2.62	2.67	2.91	5.16	2.81	3.71	2.59	1.72	0.25	2.41	1.02	3.64	31.51
1915,	5.42	3.32	1.04	0.94	3.99	4.56	4.76	4.85	2.66	2.65	1.36	3.23	38.67
Means,	3.08	2.92	3.31	3.24	3.93	4.20	3.81	3.73	3.01	2.86	2.26	2.83	39.12

St. Marys, Elk Co.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	......	......	......	......	......	7.47	6.36	2.83	5.15	1.63	3.02	1.76	......
1897,	1.89	......	4.21	2.93	3.44	2.13	6.91	2.54	2.85	0.97	4.99	2.97	......
1898,	......	1.24	6.90	2.11	3.52	3.19	3.42	......	......	5.50	2.90	2.01	......
1899,	......	1.47	3.13	0.70	4.77	4.56	3.04	4.09	4.96	3.81	3.17	3.93	......
1900,	2.29	3.07	......	0.86	......	......	6.18	4.78	2.30	3.88	3.44	1.50	......
1901,	1.86	1.43	......	5.92	6.93	4.20	3.85	5.25	3.25	1.45	3.39	4.26	......
1902,	2.62	4.10	2.39	3.47	2.39	6.56	8.65	1.43	2.23	1.65	0.55	......	......
1903,	2.87	3.50	2.50	3.90	1.90	4.90	7.20	4.56	2.34	3.70	5.33	3.35	46.05
1904,	4.50	2.82	4.25	3.25	3.75	3.91	3.82	2.87	4.08	3.10	0.45	1.77	38.57
1905,	2.50	1.25	3.76	3.75	2.48	4.33	4.50	5.60	3.23	5.61	3.07	4.67	44.65
1906,	2.96	6.58	5.26	3.14	3.96	3.53	2.69	5.62	3.51	3.89	1.48	......	......
1907,	3.64	......	......	2.25	2.20	5.65	......	1.37	5.55	3.77	2.43	2.84	......
1908,	2.87	5.25	......	4.72	8.57	2.60	5.70	2.36	1.21	0.66	1.02	2.68	......
1909,	3.01	6.89	2.65	5.05	3.07	4.38	3.05	0.38	2.11	3.04	2.29	2.97	38.96
1910,	3.99	2.37	1.05	3.36	3.25	......	......	......	......	......	......	......	......
Means,	2.92	2.83	3.61	3.25	3.89	4.42	4.95	3.36	3.29	3.05	2.68	2.89	41.14

Stoyestown, Somerset Co.—(Elevation 1,712 feet)

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1890,	......	......	......	......	......	......	......	......	......	......	......	3.30	......
1891,	2.65	5.97	4.41	2.45	3.27	5.34	5.32	3.51	2.39	3.24	2.15	3.02	43.72
1892,	2.17	3.02	3.48	3.12	5.72	4.72	6.98	1.82	1.88	0.98	4.22	2.18	40.29
1893,	3.79	7.22	1.49	4.85	6.14	3.28	3.41	2.91	2.14	4.61	3.36	4.71	47.91
1894,	4.12	4.84	1.48	3.85	8.31	2.44	3.91	1.06	6.39	1.90	3.12	4.57	45.99
1895,	3.37	2.70	3.66	3.04	1.70	3.18	4.30	2.80	0.72	0.59	1.72	......	......
Means,	3.22	4.75	2.90	3.46	5.03	3.79	4.78	2.42	2.70	2.36	2.91	3.56	41.78

Stroudsburg, Monroe Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1910,	....	....	....	....	....	....	....	....	....	....	....	2.77	....
1911,	2.82	2.55	3.17	3.39	1.65	7.37	5.43	6.95	2.46	6.28	3.72	3.28	49.07
1912,	1.88	2.65	6.71	4.32	4.94	1.60	4.29	6.94	5.56	3.53	3.34	4.52	50.28
1913,	3.19	2.69	6.25	5.02	2.94	0.95	2.31	10.93	4.57	5.73	3.27	3.29	51.14
1914,	3.70	2.22	2.70	4.85	2.74	4.83	6.70	2.67	0.26	1.80	2.54	5.56	40.57
1915,	6.13	6.15	0.68	2.20	3.19	3.20	5.84	9.10	2.65	2.92	2.17	5.04	49.27
Means,	3.54	3.25	3.90	3.96	3.09	3.59	4.91	7.32	3.10	4.05	3.01	4.08	47.80

Summit, Crawford Co.—(Elevation 1,150 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1914,	*3.72	1.91	3.16	5.12	5.01	3.37	2.44	3.61	2.98	3.47	2.22	3.74	40.75
1915,	3.73	3.03	1.37	0.87	3.89	2.86	5.68	6.02	3.09	2.66	3.42	4.51	40.12

Note: *Interpolated. This station maintained and operated by Water Supply Commission of Pennsylvania.

Sunbury, Northumberland Co.—(Elevation 445 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1896,	0.80	....	3.40	0.57	1.30	2.10	3.27	1.35	2.53	3.28	3.30	1.50	....
1897,	1.95	2.20	3.45	....	1.60	2.05	2.88	1.60	1.90	2.00	3.45	2.80	....
1898,	1.73	0.30	3.00	2.10	4.13	1.68	0.52	3.43	0.65	2.97	....	1.15	....
1899,	2.10	2.33	1.96	1.45	3.55	3.60	1.25	3.55	4.96	0.50	2.20	0.95	28.40
1900,	0.60	2.50	....	0.75	0.55	0.85	1.70	....	0.19	3.11	....	1.55	....
1901,	1.25	0.60	2.10	1.83	....	....	1.60	8.70	1.60	1.05	1.00	5.40	....
1902,	2.30	3.10	4.10	0.90	0.10	6.93	6.40	0.95	2.25	4.70	....	2.60	....
1903,	....	....	4.10	4.26	0.44	5.85	3.35	2.72	....	1.44	0.50	2.15	....
1913,	....	....	....	4.30	2.93	2.48	5.20	2.04	3.18	4.01	1.55	2.74	....
1914,	3.29	3.46	3.17	5.48	3.29	3.99	4.14	3.24	0.78	1.97	0.99	4.48	37.28
1915,	6.99	3.91	1.60	2.91	3.97	3.24	3.91	6.63	2.15	1.69	1.50	4.22	42.72
Means,	2.33	2.30	2.53	2.46	2.19	3.28	3.11	3.42	2.02	2.43	1.81	2.68	30 91

Note: 1903 is a doubtful record.

Swarthmore, Delaware Co.—(Elevation 190 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	......	......	......	......	......	1.32	2.94	6.75	6.43	4.75	4.13	3.65	......
1889,	4.80	1.92	3.43	3.51	5.84	5.48	8.74	3.52	8.04	5.29	6.74	1.05	58.36
1890,	1.87	3.93	5.20	2.88	5.59	......	3.67	4.38	2.62	6.16	0.88	2.49	......
1891,	4.84	4.46	5.78	1.63	2.12	9.30	•5.70	7.54	2.89	3.75	1.62	3.36	•52.89
1892,	4.20	0.43	4.84	1.78	5.00	4.24	3.83	3.31	1.78	0.30	6.12	1.21	37.05
1893,	3.31	6.15	3.31	5.51	3.48	......	......	......	......	3.35	4.04	3.17	......
1894,	2.00	3.17	1.31	2.60	9.49	2.93	2.04	2.63	5.[illegible]	4.74	2.82	......	......
1895,	......	......	......	5.53	2.04	......	......	......	......	3.15	1.73	2.20	......
1896,	1.72	6.62	......	1.93	1.59	4.90	......	......	5.35	1.64	3.58	1.60	......
1897,	2.99	2.91	......	......	......	4.28	10.43	3.34	1.68	2.15	6.15	3.94	......
1898,	4.08	2.97	3.27	2.71	4.66	1.74	4.95	4.63	1.95	5.35	4.69	3.33	44.24
1899,	3.25	7.10	6.50	1.00	3.30	1.95	4.26	3.00	3.95	......	2.20	......	......
1900,	3.22	......	3.53	2.00	5.29	3.07	4.52	3.79	6.90	......	2.20	2.43	......
1901,	2.31	0.60	......	4.75	3.38	......	4.00	8.72	2.25	1.02	2.70	6.97	......
1902,	3.05	......	4.02	3.88	......	5.89	......	3.94	5.10	7.42	2.00	......	......
1903,	......	4.57	4.62	3.71	4.70	5.27	5.14	7.54	2.72	5.78	1.12	3.70	......
1904,	......	2.85	3.20	2.07	2.18	......	3.65	......	5.08	4.17	2.39	2.30	......
1905,	......	......	......	2.90	1.67	1.33	4.30	4.28	4.38	3.72	1.92	4.31	......
1906,	......	2.18	4.30	3.12	......	......	......	......	......	......	......	......	......
Means,	3.20	3.49	4.10	3.92	4.02	3.98	4.86	4.81	4.16	3.92	3.16	3.01	45.73

Note: •Interpolated.

Swiftwater, Monroe Co.—(Elevation 1,600 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1897,	......	2.83	......	2.67	6.61	3.35	13.10	8.60	1.86	......	6.72	5.91	......
1898,	4.36	3.36	3.73	5.34	......	......	3.30	5.70	......	......	......	......	......
1899,	......	......	......	......	1.48	3.08	4.56	4.97	7.30	2.07	2.83	......	......
1900,	......	......	......	......	......	1.80	4.64	2.31	1.86	2.09	......	......	......

Tioga, Tioga Co. —*(Elevation 1,000 feet)*

Year.	Jan.	Feb.	March.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1864,	1.45	0.70	6.30	4.70	10.02	1.85	2.50	5.42	....	2.30	2.05	2.21	....
1865,	2.36	1.96	5.30	2.23	4.82	5.42	7.95	2.34	4.00	2.65	2.85	0.51	43.39
1866,	0.80	2.10	1.50	2.47	2.15	3.45	4.15	3.85	6.75	2.25	4.25	2.30	36.02
1867,	1.05	2.55	2.05	4.48	12.40	1.70	3.25	4.60	1.30	2.65	1.33	1.80	39.16
1868,	3.05	1.17	2.05	3.60	5.76	3.17	1.00	3.21	7.90	2.15	4.80	2.06	39.91
1869,	3.15	1.70	3.10	1.95	4.50	4.52	4.55	3.35	6.45	2.60	2.90	4.20	42.97
1870,	4.15	3.50	3.95	8.65	2.20	3.30	6.75	4.05	4.50	3.20	0.75	1.10	46.10
1871,	1.70	1.60	5.45	2.30	2.35	2.80	6.55	6.25	0.25	1.15	1.60	1.30	33.30
1872,	0.90	1.50	1.01	1.45	1.80	7.42	5.20	5.50	....	7.25	1.80	2.10	....
1873,	2.92	1.85	5.20	4.67	4.10	3.27	6.05	5.25	3.48	....	....	....	....
1874,	2.68	5.05	2.07	6.05	0.90	2.70	4.65	3.55	4.41	4.10	2.85	0.78	40.42
1875,	1.00	0.90	1.90	1.75	....	4.95	2.25	5.10	2.40	....	0.90	3.95	....
1876,	0.85	4.60	5.65	1.90	3.95	....	5.30	0.95	5.45	1.10	2.10	2.20	....
1877,	2.45	0.83	5.75	1.00	0.95	....	2.85	2.15	2.70	7.00	1.95	0.62	....
1878,	3.41	2.40	2.20	....	5.15	6.95	5.15	3.75	2.00	....	4.65	4.40	....
1879,	1.65	2.13	1.75	....	....	....	....	....	....	....	....	....	....
Means,	2.10	2.16	3.45	3.37	4.29	3.96	4.54	4.02	3.97	3.20	2.48	2.11	39.65

Towanda, Bradford Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1894,	....	....	....	....	....	....	....	....	....	5.97	1.94	3.07	....
1895,	1.95	0.50	1.28	1.70	2.56	3.64	2.84	2.49	1.47	1.19	2.22	3.57	25.41
1896,	0.84	3.96	3.88	0.93	2.38	2.17	4.57	2.97	2.73	5.57	2.75	0.57	33.32
1897,	1.21	1.56	2.20	2.30	3.73	2.11	4.81	1.78	2.93	1.17	2.80	2.78	29.38
1898,	2.52	1.48	2.69	3.29	3.56	3.04	3.15	6.84	1.98	5.86	2.91	1.97	39.19
1899,	1.80	2.52	2.55	1.84	2.10	4.52	2.47	5.43	2.03	1.21	3.39	2.82	32.68
1900,	1.36	2.90	3.48	1.31	1.38	3.49	3.49	3.44	0.69	2.83	3.53	1.99	29.89
1901,	0.91	0.45	3.92	4.65	7.58	4.26	3.51	4.79	3.95	1.31	2.43	6.00	43.76
1902,	1.72	3.36	4.07	2.36	1.06	4.86	7.77	2.02	4.58	3.35	1.11	2.95	39.20
1903,	2.62	2.73	3.83	2.37	0.89	5.05	4.85	4.63	1.24	4.98	2.66	2.42	38.27
1904,	2.72	1.06	2.78	2.48	4.89	5.03	3.96	4.32	4.70	3.18	0.69	1.59	37.35
1905,	2.63	0.44	3.20	2.30	1.48	4.72	3.28	4.83	2.97	3.79	1.34	2.56	33.53
1906,	1.22	1.19	4.26	2.61	4.43	4.87	3.51	3.55	3.30	3.55	1.46	2.65	35.60
1907,	2.82	1.10	1.35	2.28	1.92	3.16	2.07	1.13	8.31	3.12	2.30	3.24	32.80
1908,	2.06	3.13	2.86	2.88	5.63	3.09	3.72	2.15	1.18	2.55	0.64	1.99	31.88
1909,	1.85	3.11	1.84	5.23	2.50	2.90	1.01	2.22	1.81	2.50	0.86	2.03	27.91
1910,	3.79	2.68	0.71	5.36	2.56	4.24	2.00	2.08	5.14	0.62	2.45	1.52	33.15
1911,	2.29	2.12	1.77	2.66	2.30	3.12	2.47	3.50	3.37	3.50	0.99	1.76	29.75
1912,	0.68	2.08	2.92	4.87	2.95	1.20	2.99	4.12	6.44	1.97	2.49	1.71	34.42
1913,	3.01	1.34	2.80	3.65	3.09	1.96	2.14	2.44	2.80	3.39	2.51	2.36	32.48
1914,	2.71	2.69	2.56	5.76	4.02	2.91	5.33	4.24	0.95	1.66	1.40	3.43	37.66
1915,	4.99	2.19	0.70	1.67	3.01	3.71	8.98	5.69	1.26	1.83	1.25	2.96	38.24
Means,	**2.18**	**2.03**	**2.69**	**2.97**	**3.06**	**3.53**	**3.76**	**3.56**	**2.99**	**2.96**	**2.01**	**2.54**	**34.27**

Trafford, Westmoreland Co.—(Elevation 800 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	....	....	....	....	....	....	....	5.35	0.64	2.90	1.03	4.37	....
1915,	4.19	2.60	1.17	1.98	4.37	4.30	3.96	*4.02	....	....	....	....	....

Note. *Discontinued August 31, 1915. This station maintained and operated by Water Supply Commission of Pennsylvania.

Transfer, Mercer Co.—(Elevation 1,020 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	*3.27	1.75	2.51	5.12	3.86	3.01	2.97	5.48	0.68	2.46	1.38	4.70	37.19
1915,	3.16	3.00	1.25	1.00	2.97	4.57	3.56	5.08	2.67	2.26	1.93	3.89	35.34

Note: This station maintained and operated by Water Supply Commission of Pennsylvania.
*Interpolated.

Tremont, Schuylkill Co.—(Elevation 762 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1900,	3.28	6.16	5.46	1.22	1.91	3.07	9.40	3.66	2.13	3.81	3.63	2.60	46.33
1901,	1.95	0.66	6.73	3.85	6.98	2.27	3.44	9.66	4.04	1.92	2.23	9.18	51.91
1902,	4.14	6.21	7.04	4.87	1.26	8.28	8.20	4.61	8.36	7.14	1.95	7.00	69.06
1903,	4.23	5.78	5.14	6.07	0.89	10.89	8.55	7.49	2.66	5.20	1.44	3.61	60.79
1904,	4.00	3.15	4.26	2.94	5.62	3.96	4.92	5.24	4.28	3.32	1.64	2.54	45.87
1905,	4.98	1.89	6.15	2.03	1.56	2.27	5.17	6.78	5.29	6.42	2.50	4.02	49.06
1906,	3.09	3.13	6.35	4.51	2.47	7.02	3.24	5.44	2.93	3.07	0.66	5.60	47.51
1907,	3.49	2.29	4.26	2.91	2.36	5.03	0.74	4.91	7.13	4.00	3.69	8.18	50.00
1908,	3.25	8.32	4.43	3.26	6.03	1.39	8.69	2.47	2.08	4.30	0.88	3.08	48.17
1909,	3.69	5.94	4.05	5.27	2.99	2.54	1.79	0.43	2.77	3.48	0.94	4.55	38.44
1910,	5.23	4.35	0.64	7.02	7.28	8.66	2.22	4.20	2.64	1.92	4.19	3.50	51.85
1911,	3.69	2.42	3.57	4.24	4.11	3.07	3.78	8.69	4.06	....	....	....	....
Means,	3.75	4.20	4.84	3.93	3.62	4.87	4.93	5.30	4.02	4.06	2.16	4.90	50.57

Note: This record furnished by M. J. Doyle, Tremont, Pa.

Trout Run, Lycoming Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1898,	....	3.56	5.32	3.88	5.22	4.98	1.38	8.02	1.59	6.14	2.77	3.81	....
1899,	2.38	5.43	6.19	1.74	3.91	2.37	1.87	7.81	3.03	1.26	3.75	5.80	45.54
1900,	4.58	3.61	4.10	2.50	2.99	2.52	4.51	1.91	0.75	3.73	5.80	1.96	38.96
1901,	1.43	0.85	3.98	8.19	8.50	4.83	5.66	6.99	4.04	2.24	4.50	6.93	58.14
1902,	5.47	2.70	6.98	4.70	1.43	6.68	5.35	2.76	6.56	3.96	1.19	3.50	51.28
1903,	1.59	3.53	5.66	4.28	1.64	9.73	5.73	5.29	....	4.65	3.48	2.59	....
1904,	3.97	1.00	3.88	5.30	4.76	7.76	4.88	3.53	2.95	1.80	0.40	....	....
Means,	3.24	2.95	5.14	4.37	4.06	5.55	4.20	5.19	3.15	3.40	3.13	4.10	48.48

Troy, Bradford Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1884,	....	....	....	....	....	....	....	3.09	0.77	2.07	2.03	3.28	....
1885,	2.77	1.98	0.03	1.53	....	....	1.80	3.61	1.40	5.74	2.67	1.20	....
1886,	4.18	....	....	2.12	....	3.97	6.28	....	....	....	....	....	....
1888,	....	....	....	1.90	....	....	2.80	....	....	3.26	2.55	2.88	....
1889,	2.98	1.92	....	2.92	3.92	3.44	6.91	0.89	3.22	3.15	5.84	3.06	....
1890,	1.07	1.91	2.71	2.25	5.68	3.53	1.69	9.57	4.08	5.37	0.70	5.00	43.56
1891,	1.90	1.80	2.09	1.56	1.11	3.27	2.64	3.90	2.47	3.31	*2.70	*4.20	*30.95
Means,	2.58	....	....	2.06	....	....	3.69	4.21	2.39	3.82	2.75	3.27	....

Note: *Interpolated.

Trucksville, Luzerne Co.—(Huntsville Intake)—(Elevation 810 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1897,	1.04	0.79	2.83	2.60	4.74	3.84	6.06	4.22	2.02	0.91	4.23	2.98	35.26
1898,	1.51	0.20	1.89	2.18	6.53	3.40	1.73	6.24	2.96	4.17	3.56	2.46	34.83
1899,	1.71	3.45	4.06	2.29	2.26	2.32	2.90	3.45	3.32	0.71	3.59	3.54	33.60
1900,	2.11	3.70	1.74	1.46	4.57	6.06	4.77	2.56	0.72	2.87	2.44	2.18	34.18
1901,	0.84	....	4.26	3.33	5.64	4.80	4.02	9.74	2.99	1.89	1.54	6.98	....
1902,	1.47	1.05	5.76	2.88	1.03	3.55	8.77	3.20	7.62	5.97	0.75	5.40	47.45
1903,	2.79	3.32	6.14	3.33	1.13	5.01	4.51	7.03	2.45	6.55	2.17	2.33	45.76
1904,	2.15	1.13	2.92	2.92	3.91	2.80	5.48	4.85	3.52	3.78	1.13	2.05	36.64
1905,	2.85	0.98	5.22	1.89	1.73	3.07	3.83	5.61	4.15	3.93	2.07	3.24	38.57
1906,	1.87	2.16	6.09	4.63	1.93	6.96	6.22	2.75	2.99	3.72	1.82	2.22	43.36
1907,	4.24	0.96	2.02	1.26	1.91	6.36	6.79	2.28	6.00	3.47	3.77	4.84	43.92
1908,	1.69	3.25	4.50	2.45	5.86	2.38	2.96	3.74	1.98	2.13	0.20	2.48	33.62
1909,	2.76	4.86	1.83	5.94	3.45	4.91	2.24	0.66	2.62	2.62	0.64	3.84	36.37
1910,	5.28	2.52	0.87	4.17	4.09	3.90	1.38	2.72	4.40	1.18	3.49	1.81	35.81
1911,	2.90	1.46	2.70	4.12	2.64	7.12	2.93	6.66	3.68	4.33	2.21	2.92	43.67
1912,	1.11	1.89	5.19	5.16	1.79	1.53	3.09	3.00	7.30	2.83	3.88	3.26	39.03
1913,	3.11	1.67	6.32	5.02	3.32	2.04	4.42	1.89	0.79	5.02	2.51	3.09	39.15
1914,	1.49	3.08	2.30	4.54	3.95	3.91	4.26	4.22	1.01	2.14	0.95	3.25	35.10
1915,	5.46	4.12	0.76	2.22	3.60	4.20	3.51	9.19	2.79	1.03	1.23	3.62	41.73
Means,	2.44	2.26	3.57	3.28	3.32	4.06	4.10	4.37	3.33	3.07	2.23	3.29	39.31

Note: This record furnished by The Spring Brook Water Supply Company, Wilkes-Barre, Pa.

Turnerville, Crawford Co.—(Elevation 1,045 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1912,	....	....	3.90	4.74	2.78	2.26	3.20	4.54	3.49	4.91	1.57	3.01	.....
1913,	....	....	8.88	2.19	2.29	4.59	4.86	1.06	0.85	3.90	2.72	*1.99	.....
1914,	†3.52	1.90	3.12	5.38	4.23	3.94	3.60	6.27	0.87	3.44	1.70	4.09	42.06
1915,	3.08	2.85	1.30	1.19	3.69	3.42	7.00	5.22	2.68	3.29	2.03	4.12	39.87

Note: *Interpolated from Westford. †Interpolated. This station maintained and operated by Water Supply Commission of Pennsylvania.

Union City, Erie Co. —(Elevation 1,200 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	3.93	1.22	2.72	7.46	4.87	1.97	1.47	3.47	1.45	3.08	2.34	3.08	37.06
1915,	2.89	3.20	0.98	1.51	5.10	2.83	7.17	7.24	4.50	3.79	....	3.07	....

Note: This station maintained and operated, in co-operation with the Pennsylvania Department of Fisheries, by the Water Supply Commission of Pennsylvania.

Uniontown, Fayette Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	5.69	1.36	3.00	1.42	4.72	4.65	7.10	10.23	2.84	5.16	3.36	2.67	52.10
1889,	2.34	2.43	3.60	4.47	6.93	7.36	4.81	3.86	3.79	3.21	8.90	2.76	54.56
1890,	6.10	4.73	6.27	3.90	8.03	4.33	5.65	8.44	6.73	7.41	2.35	6.84	70.68
1891,	3.41	6.64	4.22	2.18	3.35	8.61	5.75	3.85	2.23	2.99	3.65	4.22	51.12
1892,	4.34	2.62	2.49	3.23	6.48	7.70	7.11	2.40	2.21	1.05	3.50	1.55	44.68
1893,	2.23	4.23	0.98	6.11	5.68	2.34	*2.70	*3.75	1.30	3.22	2.34	4.11	*38.99
1894,	2.88	3.35	2.90	3.56	6.82	1.40	2.77	1.42	5.77	2.41	2.96	5.19	41.43
1895,	4.89	1.39	3.86	4.12	2.07	4.55	5.61	3.76	1.22	1.44	2.87	2.87	38.65
1896,	2.14	3.15	4.61	2.62	3.16	3.12	15.59	2.82	3.78	3.64	3.22	1.61	49.46
1897,	1.93	5.73	*3.63	4.63	4.52	2.98	6.83	2.15	1.92	0.22	6.24	4.30	*45.08
1898,	5.63	1.73	5.26	4.19	3.46	3.27	6.06	6.13	1.54	5.83	3.99	3.64	50.72
1899,	4.28	4.51	5.67	1.37	5.09	3.07	6.44	3.38	8.17	1.76	3.18	3.82	50.74
1900,	3.33	3.96	4.54	1.85	2.72	5.67	6.55	5.30	*1.25	4.15	6.92	2.21	*47.34
1901,	3.00	0.67	4.86	8.55	6.25	7.61	2.38	3.68	4.46	0.46	3.74	7.12	52.78
1902,	2.57	2.66	5.66	5.48	3.10	5.95	6.81	2.63	3.01	3.65	1.59	4.75	47.86
1903,	1.68	4.73	3.84	3.55	2.56	6.03	4.32	3.25	1.21	2.92	2.15	1.81	38.06
1904,	2.83	2.61	4.32	3.72	3.64	2.52	3.39	3.61	1.99	1.27	0.25	1.89	31.94
1905,	3.64	1.36	*4.95	2.84	3.18	5.26	5.21	3.70	2.03	5.56	3.00	5.48	*46.21
1906,	4.35	1.88	5.15	2.41	1.77	3.96	2.00	8.23	2.69	2.87	1.73	5.62	42.65
1907,	6.52	3.17	7.89	2.15	3.64	5.20	6.41	4.80	4.24	3.08	3.83	3.67	54.60
1908,	2.21	4.14	6.84	4.83	5.11	4.16	2.66	4.02	0.63	0.57	0.67	2.91	38.75
1909,	3.70	4.13	3.04	5.73	3.22	5.65	4.03	5.70	1.33	3.44	0.64	2.43	43.04
1910,	7.97	3.44	0.41	2.73	3.86	4.33	2.84	2.24	4.07	1.48	2.51	3.62	39.50
1911,	5.46	2.77	2.36	3.89	1.81	7.16	2.73	8.10	7.00	6.06	3.12	4.05	54.51
1912,	2.08	1.75	6.00	4.75	2.42	4.22	8.19	7.76	6.41	1.85	1.17	2.08	48.68
1913,	7.94	*2.00	4.59	3.06	5.56	4.14	6.55	3.10	2.99	5.03	6.34	3.63	*54.92
1914,	3.33	*3.37	*2.08	6.46	3.45	4.10	2.25	5.63	*0.92	*2.66	*1.24	*5.27	*40.76
1915,	....	....	1.28	....	....	....	....	....	3.56	3.23	3.37	4.74	....
Means,	3.91	3.13	4.08	3.84	4.17	4.79	5.28	4.59	3.19	3.10	3.17	3.74	46.99

Note: *Interpolated.

Vandergrift, Westmoreland Co.—(Elevation 840 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1913,	......	......	......	......	......	......	......	......	......	......	......	2.48	......
1914,	2.34	2.74	2.17	4.46	3.73	4.48	3.61	4.37	0.80	2.23	1.24	4.31	35.58
1915,	4.42	2.71	1.55	1.01	4.20	4.40	4.42	5.22	2.68	2.39	2.33	4.09	39.42

Warren, Warren Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889,	2.77	1.44	0.77	5.00	3.00	3.56	5.42	3.41	3.67	3.66	3.63	4.47	41.00
1890,	4.34	3.68	3.66	5.09	8.19	4.71	2.24	5.97	8.70	6.62	2.82	2.20	58.22
1891,	2.27	5.88	2.54	1.70	1.97	3.58	12.54	4.74	2.66	3.10	5.79	4.60	51.37
1892,	2.93	3.20	1.46	1.98	9.96	7.91	4.20	4.83	2.52	2.36	3.86	2.36	47.57
1893,	2.76	5.51	3.01	4.10	6.28	4.82	1.79	6.44	1.28	3.53	3.28	5.91	48.71
1894,	3.03	2.89	1.87	3.03	9.21	3.09	2.88	1.31	6.14	3.30	3.64	2.87	43.26
1895,	3.22	0.94	1.42	3.06	2.36	2.70	2.92	4.65	2.12	1.82	5.73	2.61	33.54
1896,	1.32	3.62	3.86	2.69	3.23	4.07	6.38	2.99	6.03	2.72	2.64	1.68	41.23
1897,	2.27	1.53	2.60	3.21	4.20	2.50	6.15	4.09	1.63	0.13	6.60	2.60	37.51
1898,	2.75	1.69	3.82	3.02	4.23	5.95	2.90	7.73	2.63	5.13	4.90	3.17	47.32
1899,	3.40	3.38	4.35	1.64	6.40	2.58	5.73	1.39	7.19	1.44	1.92	6.00	45.42
1900,	4.37	4.66	2.38	2.09	2.16	4.11	6.07	3.63	1.56	2.29	5.85	2.17	41.34
1901,	3.06	1.18	3.66	2.53	3.66	4.62	6.00	8.82	3.59	1.29	5.00	3.10	46.51
1902,	1.26	1.57	1.36	2.51	4.45	5.79	9.90	0.68	4.29	2.89	1.40	4.57	40.67
1903,	2.55	1.80	4.09	3.24	3.68	4.28	6.06	4.46	2.32	3.66	2.71	2.00	40.85
1904,	2.52	2.47	5.94	4.27	7.50	1.96	8.06	3.07	4.28	2.38	1.21	2.20	45.85
1905,	3.47	0.98	4.04	4.09	3.47	6.25	8.84	3.88	3.67	5.13	3.45	3.88	51.15
1906,	1.95	0.58	4.63	2.20	2.07	2.93	3.41	2.67	4.74	5.08	1.32	5.11	36 69
1907,	4.71	0.86	2.97	3.42	4.78	4.69	3.00	2.24	5.26	3.82	2.98	3.00	41.73
1908,	3.14	4.79	3.64	3.86	5.00	4.16	3.40	1.66	1.40	0.52	1.64	2.85	36.06
1909,	3.57	4.56	3.36	6.44	3.46	5.82	2.78	3.32	1.68	2.96	2.40	2.54	42.89
1910,	4.52	3.76	0.82	3.84	3.02	1.98	4.90	2.90	2.92	3.92	5.06	2.74	40.38
1911,	3.82	3.76	3.36	3.92	2.23	4.56	3.20	7.58	6.27	4.86	3.62	2.96	50.13
1912,	2.70	2.54	2.86	5 91	2.78	1.86	4.04	7.18	5.78	3.67	2.50	2.68	44.36
1913,	5.91	2.18	7.25	4.17	3.44	3.07	3.83	3.19	2.54	5.58	3.79	2.02	46 97
1914,	3.18	1.97	3.08	5.40	5.09	2.15	1.74	6.02	1.86	3.53	3.38	3.08	40 48
1915,	2.80	1.93	1.63	1.66	3.67	5.59	7.32	5.00	2.84	2.28	3.14	4.15	42.01
Means,	3.13	2.72	3.13	3.48	4.43	4.06	5.03	4.23	3.67	3.35	3.47	3.24	43.84

Waterville, Lycoming Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914, ...	....	....	....	....	....	....	5.05	2.80	0.70	2.60	0.90	3.20	....
1915, ...	3.60	3.90	1.40	2.40	3.40	3.90	7.40	6.10	2.60	1.00	1.60	1.50	38.80

Weikert, Union Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1911, ...	3.03	2.68	2.93	4.00	3.44	2.92	2.05	8.09	6.11	6.23	2.37	3.21	47.06
1912, ...	1.46	2.89	4.64	5.15	3.32	1.81	2.66	5.48	6.47	2.14	2.90	2.36	41.28
1913, ...	4.72	2.19	5.08	3.72	4.65	2.04	5.94	1.06	4.42	5.87	2.39	3.10	45.18
1914, ...	4.49	2.31	2.57	5.08	3.79	4.47	4.40	1.96	0.58	3.13	2.52	4.80	40.09
1915, ...	7.06	4.15	1.48	2.21	4.27	5.44	....	5.44	2.41	2.60	2.14	3.84	....
Means, ...	4.15	2.84	3.34	4.03	3.89	3.34	3.76	4.40	4.00	3.99	2.46	3.46	43.66

Wellsboro, Tioga Co.—(Elevation 1,327 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1864, ...	1.46	0.70	6.30	4.70	10.02	1.86	2.50	5.42	....	2.30	2.06	2.21	....
1865, ...	2.36	1.96	5.30	2.23	4.82	5.42	7.96	3.34	4.00	2.65	2.86	0.51	43.39
1866, ...	0.80	2.10	1.50	2.47	2.15	3.46	4.15	3.86	6.76	2.25	4.25	2.30	36.02
1867, ...	1.06	2.86	2.06	4.48	12.40	1.70	3.25	4.00	*1.30	2.65	*1.33	1.80	*30.16
1868, ...	3.06	1.17	2.06	3.60	5.76	3.17	1.00	3.21	7.90	2.15	4.80	2.06	39.91

1869,	3.15	1.70	3.10	1.96	4.50	4.52	4.55	3.35	6.45	2.60	2.90	4.20	42.97
1870,	4.15	3.50	3.96	8.65	2.20	3.30	6.75	4.05	4.50	3.20	0.75	1.10	46.10
1871,	1.70	1.60	5.45	2.30	2.35	2.80	6.55	6,25	0.25	1.15	1.60	1.30	33.30
1872,	0.90	1.50	1.01	1.45	1.80	7.42	5.30	6.50	....	7.25	1.80	2.10	....
1873,	2.92	1.85	5.20	4.67	4.10	3.27	6.05	5.25	3.48	....	....	....	....
1874,	2.68	5.05	2.70	6.06	0.90	2.70	4.65	3.55	4.41	4.10	2.85	0.78	40.42
1875,	1.00	0.90	1.90	1.75	....	4.95	2.25	5.10	2.40	....	0.90	3.95	....
1876,	0.85	4.60	5.65	1.90	2.95	....	5.10	0.95	5.45	1.10	2.10	2.20	....
1877,	2.45	0.83	5.75	1.00	0.96	....	2.85	2.15	2.70	7.00	1.95	0.62	....
1878,	3.41	2.40	2.20	....	5.15	6.95	5.15	3.75	2.00	....	4.65	4.40	....
1879,	1.65	2.13	1.75	8.38	3.86	6.52	7.68	5.24	2.06	0.44	3.99	4.15	47.85
1880,	8.71	5.52	7.26	7.45	4.65	9.09	12.30	8.05	8.40	5.18	3.82	4.64	85.07
1881,	4.99	9.97	3.74	1.54	5.72	17.47	3.77	1.45	1.80	3.23	3.74	9.57	66.79
1882,	6.62	7.86	7.41	2.50	9.12	9.90	10.57	9.52	5.96	0.79	4.04	4.37	74.86
1883,	7.12	10.78	7.21	6.31	8.81	9.26	10.24	2.86	3.27	2.42	2.54	1.27	72.09
1884,	8.09	10.93	10.08	2.31	9.36	4.88	8.67	1.96	3.20	3.02	7.27	7.37	77.13
1885,	5.81	3.72	2.00	2.51	2.15	2.72	3.77	15.25	2.55	7.50	4.04	5.59	57.91
1886,	2.17	0.96	8.25	10.77	1.51	2.01	4.63	2.79	4.11	1.88	7.71	2.46	49.24
1887,	4.40	5.04	0.66	3.44	3.70	3.96	7.03	2.61	2.42	2.54	2.25	2.35	40.50
1888,	3.70	4.54	3.60	2.49	3.16	3.90	3.50	5.76	1.75	6.69	3.68	5.91	48.68
1889,	7.02	2.98	3.24	8.15	3.45	10.04	3.06	0.83	2.71	5.61	9.07	3.93	60.09
1890,	1.98	2.28	6.03	4.03	7.80	5.14	2.65	6.89	4.39	*4.69	0.93	4.97	51.78
1891,	6.53	3.46	2.72	1.07	1.30	4.07	3.43	3.57	2.30	2.44	4.11	4.01	39.01
1892,	3.67	2.21	4.56	0.61	6.69	8.84	2.15	4.73	1.18	0.33	2.55	0.40	37.92
1893,	4.92	6.55	5.09	5.38	6.58	1.42	2.50	4.59	2.03	2.88	3.00	4.21	49.15
1894,	2.25	2.25	0.24	8.69	10.23	1.89	3.88	2.05	5.85	3.81	3.06	4.07	48.27
1895,	3.00	0.85	2.90	2.21	6.44	3.50	3.22	4.65	1.12	1.62	2.67	6.55	38.73
1896,	1.50	4.34	3.00	0.91	1.87	3.92	5.67	0.88	3.03	5.40	0.82	0.95	32.29
1897,	2.23	2.30	3.55	2.55	5.53	2.85	5.46	1.84	3.40	0.67	5.21	3.09	38.68
1898,	1.72	1.33	4.78	4.43	4.70	2.70	2.04	5.13	2.24	8.62	2.83	2.68	43.20
1899,	3.42	2.54	2.75	3.07	2.15	4.09	3.37	3.49	2.97	2.63	2.90	3.78	37.16
1900,	3.04	4.90	2.90	1.22	2.50	2.90	2.90	3.67	0.55	5.01	6.11	0.97	36.67
1901,	1.27	0.80	2.53	4.46	4.23	4.17	2.27	5.04	2.14	0.39	3.59	5.66	36.55
1902,	1.54	2.70	2.67	2.86	2.05	6.17	9.48	1.29	3.32	2.14	0.50	5.18	39.90
1903,	1.86	3.55	5.19	2.76	2.12	4.87	5.27	3.37	1.10	5.68	2.42	1.35	39.54
1904,	2.95	*2.44	*3.58	*3.25	*4.30	*3.19	*3.26	*3.39	*2.71	*2.35	*0.48	*1.62	*33.52
1905,	*2.64	*0.66	*3.15	*2.34	*1.68	*4.79	*3.70	*4.08	*2.71	*3.13	*1.93	*3.57	*34.38
1906,	*1.20	0.60	*4.21	1.17	4.23	2.96	2.19	4.07	3.04	4.06	0.99	2.04	*30.75
1907,	2.35	0.80	1.72	3.28	2.15	4.39	2.14	1.17	5.58	2.76	2.52	2.93	31.79
1908,	2.28	3.83	3.86	3.16	5.19	1.93	4.12	3.53	1.37	1.76	1.07	2.26	34.36
1909,	1.96	3.52	1.79	6.13	2.62	4.61	0.96	1.51	2.64	2.21	0.94	1.96	30.85
1910,	4.23	3.18	0.61	6.41	4.27	1.95	2.41	2.47	3.98	0.99	2.13	1.55	34.18
1911,	1.73	2.21	1.98	2.27	1.83	2.65	1.29	5.57	3.88	2.85	1.92	1.90	30.08
1912,	0.84	2.76	4.09	4.38	4.19	2.15	3.01	4.63	5.39	1.72	2.15	2.26	37.47
1913,	4.56	1.34	4.76	3.22	3.56	*2.98	*3.34	*2.15	*3.47	6.50	*2.41	*1.48	*39.75
1914,	2.25	2.22	2.22	4.04	*4.07	2.60	4.02	4.35	0.82	2.82	1.44	3.07	*33.92
1915,	6.46	2.23	0.94	0.57	2.84	4.08	4.41	4.43	2.49	2.67	1.27	2.54	34.93
Means,	2.62	2.42	3.26	3.58	3.93	3.84	3.90	3.62	3.07	3.08	2.64	2.68	38.64

Notes: *Interpolated. Portions of each year 1880 to 1885 questionable and not used in computing means.

West Bingham, Potter Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	....	....	....	....	....	d1.84	3.95	4.69	1.93	2.72	1.59	2.78	....
1915,	4.93	2.25	0.78	0.76	3.56	3.74	5.76	4.37	2.65	3.62	1.76	4.30	38.48

West Chester, Chester Co.—(Elevation 461 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1817,	....	....	....	....	....	5.50	2.55	7.05	4.20	2.07	5.85	3.60	....
1818,	2.10	2.00	3.70	2.77	8.80	4.60	8.25	4.70	4.40	1.20	3.45	1.86	47.83
1819,	1.10	4.00	4.35	2.60	4.75	1.80	3.47	4.20	1.95	1.50	1.40	....	....
1820,	....	....	1.30	2.10	7.90	3.40	4.30	2.90	4.10	10.10	3.80	3.60	....
1821,	4.30	3.90	1.60	3.45	7.90	4.15	4.00	1.90	7.90	5.40	5.30	3.50	52.60
1822,	2.30	4.30	2.40	3.20	3.50	2.35	3.60	2.20	4.50	2.50	7.00	1.45	39.30
1823,	4.10	1.70	6.90	1.90	4.05	2.15	6.00	5.25	5.00	2.50	2.55	9.30	51.40
1824,	5.01	4.95	3.50	5.30	2.50	6.00	6.90	5.40	6.20	2.00	2.30	3.95	54.01
1825,	2.50	4.70	6.70	1.40	2.80	5.80	2.50	6.10	2.40	2.10	0.90	5.40	42.30
1826,	1.40	2.50	6.30	3.80	0.70	8.10	2.55	2.60	4.20	5.20	2.40	1.20	39.95
1827,	2.90	4.50	2.50	3.80	3.50	3.95	4.50	6.30	0.80	6.50	5.50	4.70	49.45
1843,	2.13	2.50	2.69	4.25	3.50	2.25	4.81	9.31	4.37	3.01	5.31	2.38	46.50
1844,	4.20	1.51	3.69	1.19	3.56	4.06	1.87	1.63	3.88	4.53	2.64	1.88	33.37
1845,	2.88	3.57	2.00	1.26	1.56	3.87	3.44	3.43	2.44	3.50	3.94	3.37	35.56
1846,	3.25	1.06	4.06	2.44	4.37	3.25	5.62	4.50	1.12	2.00	6.87	2.88	41.46
1847,	3.50	3.51	3.87	0.88	2.25	2.25	6.12	4.50	6.75	2.87	3.00	3.37	42.87
1848,	1.87	0.88	2.75	1.70	4.62	2.38	4.93	1.01	3.00	5.50	2.75	1.88	33.27
1849,	0.81	2.65	4.64	1.47	4.48	2.86	2.31	6.02	0.48	8.66	2.50	6.24	43.02
1850,	4.52	4.14	4.47	2.69	5.56	3.47	6.29	6.81	7.57	0.97	2.65	4.65	53.79
1851,	1.59	4.17	2.97	4.91	5.70	3.17	4.69	2.61	1.07	3.87	3.59	2.43	40.77
1852,	1.36	2.45	3.81	5.07	3.18	4.37	2.84	7.15	2.20	2.21	7.24	5.42	47.30
1853,	1.59	5.35	1.98	3.65	5.53	1.06	6.89	2.96	4.33	4.02	2.03	1.42	40.81
1854,	3.49	6.17	1.30	6.58	5.56	2.71	4.30	3.02	3.41	1.60	3.37	3.41	44.92
1855,	2.41	2.36	1.66	2.30	4.30	9.32	4.06	2.48	3.92	5.35	2.01	6.41	46.58
1856,	2.46	1.17	1.71	3.36	3.06	1.84	2.49	5.46	4.91	1.18	2.96	3.66	34.29
1857,	2.66	1.38	1.55	5.65	5.80	6.59	1.77	8.26	1.03	3.71	1.51	5.69	45.60
1858,	3.09	1.65	0.83	....	....	....	....	....	1.91	1.14	6.01	....	....
1859,	6.74	....	....	....	....	....	....	....	....	....	....	....	....
1860,	3.37	2.61	1.24	3.65	4.68	2.15	1.43	9.16	5.11	7.10	6.83	4.17	51.49
1861,	4.15	1.75	3.16	4.12	5.60	1.87	2.51	2.81	3.07	3.63	4.35	1.67	38.69
1862,	4.12	4.60	2.78	3.64	1.15	7.52	2.98	1.24	4.02	3.40	5.77	1.55	42.77
1863,	4.82	3.92	6.83	6.47	4.19	1.75	8.29	1.68	1.92	3.75	2.85	6.52	52.99
1864,	1.78	0.47	5.15	5.22	7.47	3.64	1.97	2.87	5.59	3.02	4.35	3.66	45.19
1865,	3.22	4.76	5.58	2.47	6.34	8.13	6.91	2.74	6.62	4.38	3.08	5.79	59.92
1866,	2.94	6.11	1.22	3.14	4.73	4.40	1.54	2.73	8.40	3.77	2.85	4.26	46.09
1867,	2.25	4.69	5.52	2.20	8.85	8.16	3.24	10.63	1.07	3.89	1.84	2.79	55.13
1868,	4.20	2.37	3.67	5.48	6.58	3.95	5.68	2.95	9.15	1.57	6.00	3.30	54.90
1869,	4.88	3.96	4.62	3.20	5.40	3.25	4.22	0.55	4.48	7.19	4.29	4.94	50.99
1870,	4.48	4.18	5.15	8.34	4.92	5.69	3.85	8.27	3.25	4.77	2.03	2.22	57.15
1871,	3.52	3.65	5.85	1.85	2.60	5.88	7.18	6.04	2.32	4.78	5.43	1.83	50.93
1872,	1.86	0.67	3.67	2.49	2.55	4.91	5.14	8.58	3.37	5.26	4.34	3.83	46.67
1873,	5.19	5.17	3.09	4.96	6.12	0.96	5.85	6.76	6.29	6.86	4.34	1.54	57.13
1874,	4.47	2.98	1.91	8.67	3.37	2.23	4.53	4.50	5.26	4.35	3.20	2.20	47.67
1875,	3.84	4.22	5.12	2.72	2.09	4.96	3.84	9.67	3.12	2.11	6.10	4.35	52.14

West Chester, Chester Co.—Continued

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1876,	2.30	4.56	7.49	2.11	4.26	2.32	7.21	1.32	12.33	2.50	4.90	2.76	54.06
1877,	4.15	2.55	5.86	3.10	0.83	5.08	6.65	1.42	5.07	8.06	8.11	2.05	52.93
1878,	5.22	4.00	3.71	3.89	4.32	4.16	4.35	2.90	3.06	3.22	3.83	5.84	48.50
1879,	2.88	2.62	2.73	5.19	1.38	4.13	2.60	6.10	2.20	0.60	1.63	6.13	38.19
1880,	2.82	3.01	4.71	3.69	1.35	1.91	6.90	3.18	1.49	2.28	2.90	6.65	40.89
1881,	5.15	5.99	6.36	1.10	2.59	5.60	1.77	0.94	1.53	3.00	3.08	4.39	41.53
1882,	6.38	4.95	4.61	2.36	6.94	1.50	2.80	4.38	7.23	1.15	1.42	1.98	45.70
1883,	4.52	5.45	3.62	3.52	2.71	5.72	2.54	5.20	3.64	4.45	2.30	4.63	48.30
1884,	7.32	7.29	6.09	2.94	3.64	7.52	5.27	2.12	0.42	2.56	4.36	7.06	56.58
1885,	4.65	6.39	1.34	2.20	4.07	1.26	0.93	9.51	1.49	6.25	4.71	4.18	46.98
1886,	5.98	6.22	4.87	3.80	7.00	4.30	6.31	1.27	1.10	3.06	4.48	4.88	53.27
1887,	3.95	5.55	3.66	3.51	4.06	6.72	11.27	2.94	5.67	1.76	2.13	6.81	58.03
1888,	5.89	4.97	6.39	2.48	4.11	1.79	4.47	3.96	7.50	3.11	3.94	4.97	53.58
1889,	4.78	2.46	5.44	5.46	5.78	5.38	12.49	4.43	9.95	4.97	9.91	1.95	73.00
1890,	2.60	5.41	6.77	3.15	6.42	2.42	6.27	5.87	4.07	6.28	1.23	3.94	54.43
1891,	6.56	5.92	8.33	2.32	3.75	4.17	10.11	8.85	4.30	3.40	2.29	4.00	64.00
1892,	5.80	1.31	5.89	2.60	6.37	3.55	5.87	3.50	2.03	0.36	6.05	2.39	45.72
1893,	2.77	6.13	2.40	5.02	4.18	2.59	2.60	3.65	2.58	3.45	4.76	3.16	43.29
1894,	1.60	4.66	1.67	3.81	13.82	3.74	3.86	1.86	6.84	5.89	2.78	4.23	54.76
1895,	4.95	1.61	3.44	5.37	3.30	2.47	1.73	2.28	0.62	2.58	1.55	3.13	33.03
1896,	1.87	6.77	5.42	1.49	1.58	5.84	3.54	0.95	6.91	2.14	4.17	0.59	41.27
1897,	2.33	5.00	2.55	3.06	7.47	2.43	9.91	2.58	1.27	2.61	5.08	4.21	48.50
1898,	4.21	3.74	3.13	3.07	6.94	3.55	5.43	4.76	1.74	6.15	6.82	4.46	53.00
1899,	4.71	6.95	7.38	2.02	2.63	1.96	2.94	4.38	6.55	1.91	2.60	2.17	46.20
1900,	3.76	6.38	4.00	2.39	6.57	3.62	5.15	5.78	3.26	2.03	2.00	2.50	47.44
1901,	3.02	0.88	4.93	6.18	4.61	1.32	6.65	8.52	3.99	1.92	3.14	8.59	53.75
1902,	4.06	7.18	4.65	4.63	1.60	6.75	3.61	4.12	7.00	7.92	2.60	7.95	62.07
1903,	4.91	4.66	4.09	4.53	2.76	7.75	5.92	6.16	2.78	6.06	1.40	4.19	55.21
1904,	3.82	2.53	4.31	2.34	5.19	4.37	3.65	5.92	7.06	5.47	3.31	3.02	50.98
1905,	5.00	2.78	4.23	3.86	3.35	2.65	3.86	7.30	4.50	4.90	2.18	3.37	47.98
1906,	3.76	3.13	5.61	3.66	4.21	7.35	7.15	7.47	1.34	5.85	2.13	5.61	57.27
1907,	4.16	2.57	3.31	2.65	4.93	7.01	4.10	2.38	7.30	4.62	6.81	5.72	55.56
1908,	3.01	5.77	3.48	2.54	5.34	4.04	4.03	5.40	2.23	2.16	1.19	3.41	42.59
1909,	3.21	5.04	4.20	3.16	2.63	3.49	0.96	1.80	3.02	1.11	2.50	4.51	35.63
1910,	5.36	3.77	0.52	5.50	3.42	7.28	2.92	6.46	2.58	3.14	4.38	2.34	47.62
1911,	3.79	2.66	3.05	4.23	1.17	5.51	3.40	12.33	3.91	4.22	4.84	3.75	52.89
1912,	2.31	2.70	8.12	3.52	3.48	3.15	4.11	4.73	4.20	4.25	4.08	5.50	50.15
1913,	4.43	2.13	5.01	8.80	5.87	2.03	2.90	5.31	3.29	6.87	2.74	2.99	51.37
1914,	4.16	3.00	2.01	3.21	1.67	3.64	10.66	2.16	0.29	1.64	3.41	6.28	41.03
1915,	6.83	6.30	1.70	2.20	5.59	4.80	2.99	9.09	1.81	2.89	1.85	5.03	51.07
Means,	3.74	3.94	4.00	3.07	4.50	4.18	4.65	4.71	4.00	3.75	3.70	4.05	48.89

Note: 1843-48 record taken at West Marlborough. This record probably does not include snowfall, and has not been included in the means. 1849-59 record taken at Chromedale, 2 miles south of West Chester.

Westford, Crawford Co.—(Elevation 1,100 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1913,	....	....	....	....	....	....	....	....	....	....	....	1.83	....
1914,	3.35	1.94	2.90	4.86	4.40	3.37	2.64	4.45	0.99	2.73	2.30	4.26	38.19
1915,	2.96	3.23	1.06	0.97	3.53	2.95	6.70	4.09	2.76	2.48	2.56	4.02	37.31

Note: This station maintained and operated by Water Supply Commission of Pennsylvania.

West Marlborough, Chester Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1843,	2.13	2.50	2.69	4.25	3.50	2.25	4.81	9.31	4.37	3.01	5.31	2.38	46.50
1844,	2.93	1.51	3.69	1.19	3.56	4.06	1.87	1.63	3.88	4.53	2.64	1.88	33.37
1845,	2.88	3.87	2.00	1.26	1.56	3.87	3.44	3.43	2.44	3.50	3.94	3.37	35.56
1846,	3.25	1.06	4.06	2.41	4.37	3.25	5.62	4.50	1.12	2.00	6.97	2.88	41.46
1847,	3.50	3.51	3.87	0.88	2.25	2.25	6.12	4.50	6.75	2.87	3.00	3.37	42.87
1848,	1.87	0.88	2.75	1.70	4.62	2.38	4.93	1.01	3.00	5.50	2.75	1.88	33.27
1849,	0.44	0.63	3.06	0.50	4.00	3.37	1.50	7.25	0.88	6.12	2.25	3.38	33.38
1850,	4.00	2.50	1.00	0.81	6.37	1.63	7.75	4.70	6.13	0.88	3.16	4.00	42.93
1851,	0.94	2.94	1.87	3.70	4.56	3.88	2.25	3.87	0.79	1.69	3.94	0.40	30.83
1852,	0.65	1.25	1.81	1.25	3.00	2.69	3.79	8.31	3.10	2.06	6.38	4.50	38.70
1853,	1.56	3.07	1.50	4.63	5.06	2.44	5.62	3.25	2.56	3.12	2.79	0.94	36.54
1854,	3.06	5.56	1.13	4.44	4.62	4.13	4.25	1.56	3.37	1.50	3.56	2.70	39.88
1855,	2.87	2.88	1.70	2.19	3.60	10.27	5.78	4.92	3.19	9.50	2.06	5.46	54.42
1856,	2.27	1.01	1.00	3.90	4.36	1.35	2.63	9.00	4.35	1.31	2.65	4.97	38.80
1857,	1.75	0.74	0.70	4.43	7.02	9.18	2.35	5.91	1.73	4.75	1.37	7.00	46.93

Note: This record is given as it was found printed in a West Chester journal, but it bears internal evidence that it is not a full record for the first months of the year, particularly, and it probably does not contain any record or measurement of snowfall.

West Newton, Westmoreland Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1891,	•3.00	6.45	3.49	1.86	4.16	4.41	5.12	1.98	1.35	2.11	1.79	3.59	•39.31
1892,	3.33	0.87	2.24	3.32	4.35	5.32	4.09	1.34	2.25	0.49	3.13	2.20	32.93
1893,	3.14	5.68	0.99	5.55	5.54	2.77	2.22	3.53	1.39	2.54	1.27	3.31	37.93
1894,	2.39	3.87	2.16	3.15	4.24	1.75	1.72	0.46	3.20	1.82	2.10	4.87	31.73
1895,	3.96	0.80	2.10	3.54	2.11	2.58	3.19	3.53	0.69	0.72	3.17	3.18	29.57
1896,	1.93	2.87	4.53	2.68	2.67	4.21	11.46	6.53	4.41	2.89	2.49	1.62	48.29
1897,	1.92	4.63	4.58	3.60	3.08	2.60	4.51	1.89	2.17	0.05	5.52	2.97	37.52
1898,	5.60	1.98	5.77	1.91	4.12	2.67	3.21	6.04	2.84	4.43	2.87	2.10	43.54
1899,	3.94	3.96	4.94	1.47	4.81	2.74	4.27	2.84	3.38	0.53	4.06	2.85	39.79
1900,	2.54	3.56	3.83	1.65	3.59	3.15	4.57	1.90	0.54	2.62	4.91	1.93	34.79
1901,	1.79	0.78	3.25	8.69	4.60	4.81	4.02	3.56	2.06	0.47	2.17	5.23	41.42
1902,	2.67	2.40	4.12	4.33	1.76	4.52	6.82	1.42	1.52	5.25	1.27	6.02	42.10
1903,	3.52	5.67	4.80	3.03	1.90	6.48	6.06	3.95	1.74	3.15	2.30	2.36	44.96
1904,	3.30	3.04	4.63	4.52	3.42	4.56	3.94	2.75	1.11	1.68	0.19	3.32	36.36
1905,	2.90	2.10	4.66	3.44	2.94	7.66	7.74	3.30	2.96	3.92	2.59	4.02	48.23
1906,	2.14	1.23	3.33	1.84	1.71	5.59	4.22	8.60	1.84	3.22	0.74	3.44	37.90
1907,	6.08	1.74	6.65	2.00	2.85	4.28	4.54	4.34	5.14	2.00	1.87	3.34	44.83
1908,	2.68	3.13	7.26	3.47	4.32	2.44	4.46	1.74	0.96	0.72	1.01	3.18	35.37
1909,	3.32	5.00	3.16	5.32	2.81	3.30	2.57	7.76	1.34	2.99	0.65	2.47	40 69
1910,	6.93	3.38	0.34	2.88	3.00	4.46	1.74	3.40	4.06	1.35	1.70	3.82	37.06
1911,	4.64	2.78	1.97	4.35	1.55	3.14	2.20	5.71	7.61	4.52	2.90	3.40	44.77
1912,	2.41	1.07	6.55	4.43	3.01	3.81	12.65	4.51	6.51	1.88	1.29	2.68	50.80
1913,	5.86	2.16	3.72	3.10	5.82	2.80	6.10	3.80	1.72	4.46	2.95	2.53	45.02
1914,	2.50	4.23	2.13	4.66	2.36	4.23	1.31	3.44	1.34	3.11	1.16	6.48	36.95
1915,	4.62	3.39	1 56	1.23	5.94	3.83	5.81	3.34	1.94	3.33	2.84	3.91	41.74
Means,	3.48	3.07	3.71	3.44	3.47	3.92	4.74	3.67	2.56	2.41	2.28	3.39	40.14

Note: •Interpolated.

Westtown, Chester Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1887,	....	....	....	....	....	....	....	2.85	....	4.93	1.38	5.41	....
1888,	5.11	5.43	3.13	....	2.88	2.23	3.63	3.14	5.63	5.37	....	4.08	....
1889,	3.51	1.72	....	....	....	....	....	....	....	5.37	8.13	1.23	....
1890,	0.37	2.39	4.68	....	5.90	2.83	....	....	3.60	5.75	0.97	3.30	....
1891,	5.64	4.14	5.38	....	3.04	4.62	....	....	....	....	0.92	3.24	....
1892,	5.32	1.66	4.08	....	7.23	0.73	....	....	2.38	0.30	5.41	2.27	....
1893,	2.40	3.95	....	....	3.15	1.30	....	....	1.36	....	....	3.07	....
1894,	1.39	3.99	1.60	....	13.40	4.08	....	....	5.83	5.58	2.85	4.36	....
1895,	....	1.02	....	....	3.34	3.74	....	....	0.67	3.41	1.42	2.68	....
1896,	....	7.21	4.78	....	1.51	....	....	....	6.97	2.40	c2.98	....	....
1897,	2.64	4.52	....	....	....	....	....	....	....	2.42	4.79	....	....
1898,	3.91	3.25	2.88	....	6.31	2.94	....	....	....	4.75	6.06	....	....
1899,	4.98	5.38	....	....	....	....	....	....	....	1.56	2.92	....	....
1900,	2.43	5.78	3.09	....	5.87	....	....	....	f3.38	2.87	0.95	....	....
1901,	3.08	0.76	4.43	....	3.16	k1.29	....	....	h2.11	1.28	2.94	16.25	....
1902,	4.06	5.98	2.81	....	1.55	....	....	....	....	....	....	....	....
Means,	3.45	3.81	3.69	....	4.78	2.80	....	....	3.78	3.54	3.21	3.40	....

White Haven, Luzerne Co.—(Elevation 1,150 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1895,	....	....	1.79	4.24	2.75	2.22	2.16	2.87	1.64	2.67	2.95	5.39	....
1896,	0.79	4.25	5.70	1.00	2.78	3.83	7.60	2.44	3.71	4.08	5.49	0.92	42.59
1897,	1.80	1.73	2.22	3.99	6.49	2.32	6.49	3.48	1.25	1.75	4.94	4.20	40.66
1898,	3.07	1.56	3.62	3.63	6.72	2.70	3.35	6.15	1.01	5.70	4.18	2.51	44.20
1899,	2.15	4.67	4.12	1.28	....	....	....	....	....	....	....	....	....
1906,	....	....	....	....	....	6.56	3.26	3.35	3.24	5.01	2.84	4.00	....
1907,	3.13	2.78	2.44	1.73	2.07	6.38	2.40	....	....	....	....	....	....
1914,	....	....	....	....	....	....	10.08	3.29	0.79	2.05	1.49	3.89	....
1915,	5.48	4.77	1.20	3.85	4.40	2.10	5.87	8.83	1.71	1.44	2.05	4.66	46.36
Means,	2.74	3.29	3.01	2.82	4.20	3.73	5.15	4.34	1.94	3.24	3.42	3.65	41.53

Wilkes-Barre, Luzerne Co.—(Elevation 575 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1883, ...	....	....	....	....	....	8.52	7.08	0.88	3.19	3.12	1.45	1.99	....
1884, ...	3.41	3.48	4.95	2.46	3.97	2.68	4.62	2.90	....	3.16	3.50	4.53	....
1885, ...	5.18	3.27	0.90	2.56	2.66	2.51	3.01	7.92	1.20	4.65	5.15	2.68	41.69
1886, ...	4.26	2.52	4.10	2.19	7.04	2.95	3.75	....	4.77	2.82	5.80	2.27	....
1887, ...	3.25	4.70	1.73	2.16	....	6.06	8.76	4.15	1.48	....	1.73	3.61	....
1888, ...	....	....	....	2.49	....	....	....	....	....	....	....	....	....
1889, ...	....	....	....	....	....	....	....	....	5.79	3.16	6.39	2.72	....
1890, ...	1.97	3.00	4.89	2.62	6.84	5.07	5.78	5.44	2.49	4.85	1.29	3.95	48.12
1891, ...	4.59	4.00	3.67	2.28	1.53	2.88	4.48	3.46	1.80	1.63	2.54	4.38	37.24
1892, ...	7.02	1.11	6.41	1.55	5.89	10.55	4.71	6.56	2.51	0.72	4.37	1.53	51.93
1893, ...	3.34	7.23	3.83	3.27	4.15	1.43	3.00	3.76	3.74	1.70	2.97	4.07	42.49
1894, ...	1.63	4.50	1.68	3.41	8.56	1.78	0.74	1.14	5.05	5.53	2.29	3.66	39.97
1895, ...	3.43	2.32	2.94	2.71	4.16	2.89	2.69	4.95	1.59	2.51	1.57	4.13	35.59
1896, ...	1.14	6.17	6.31	1.06	3.17	2.40	6.20	3.99	2.26	2.74	3.44	1.08	38.56
1897, ...	1.40	2.06	3.78	3.34	5.81	3.72	3.76	2.57	1.49	1.47	4.35	3.80	37.56
1898, ...	2.90	0.96	2.76	2.46	6.01	3.29	2.33	5.16	3.44	2.36	3.90	1.95	37.55
1899, ...	3.21	4.48	4.49	1.37	2.07	2.82	3.91	2.67	4.29	1.29	2.70	1.72	35.02
1900, ...	1.98	3.21	2.91	1.01	3.81	3.39	5.74	3.16	0.53	2.59	3.05	3.02	34.39
1901, ...	2.10	0.75	3.81	3.11	5.36	2.48	2.74	7.23	1.64	2.55	1.23	5.98	38.98
1902, ...	2.23	5.60	3.19	1.58	0.98	6.10	5.01	1.89	6.82	4.29	1.14	4.95	43.78
1903, ...	2.09	4.13	4.32	3.07	1.12	8.38	4.42	7.13	2.16	4.88	1.94	3.06	46.75
1904, ...	2.86	1.59	3.62	2.34	2.15	2.95	5.83	6.58	3.34	3.68	1.18	3.38	38.50
1905, ...	4.57	1.86	4.34	2.03	1.39	2.54	3.57	4.40	3.04	3.32	1.44	3.18	35.68
1906, ...	1.17	3.46	4.50	3.50	1.89	6.35	3.87	1.62	3.33	3.84	1.89	3.49	38.90
1907, ...	2.86	1.75	3.19	1.55	1.58	3.56	5.08	*2.20	6.50	2.50	2.06	5.66	*39.38
1908, ...	1.60	5.91	3.94	2.59	3.79	1.87	2.93	3.93	1.11	2.27	1.14	2.38	32.45
1909, ...	2.88	4.23	2.47	6.27	3.19	4.08	1.24	1.26	1.84	2.57	0.88	3.16	33.07
1910, ...	3.83	5.31	*1.00	3.88	3.36	3.14	1.59	2.86	5.44	0.94	2.76	*1.90	*36.00
1911, ...	2.47	1.37	1.83	2.37	0.91	6.18	2.13	6.83	2.94	3.88	3.12	1.98	35.01
1912, ...	1.13	1.29	4.49	3.66	1.96	1.68	1.87	3.17	7.85	2.46	2.73	2.86	35.15
1913, ...	2.45	1.80	4.44	5.42	3.09	2.78	5.69	1.75	4.70	4.76	3.26	2.16	41.30
1914, ...	1.51	2.01	2.32	3.98	4.18	3.04	6.15	7.20	0.93	1.53	0.86	3.62	37.33
1915, ...	4.47	3.99	0.70	1.76	3.23	3.42	4.40	6.70	2.61	1.24	1.41	3.76	37.78
Means, ...	3.90	3.27	3.45	2.68	3.58	3.92	4.10	3.98	3.32	3.87	2.56	3.21	39.74

Note: *Interpolated.

Wilkes-Barre, Luzerne Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1899,	2.52	4.67	3.30	1.37	2.07	2.82	3.91	2.67	4.29	1.29	2.70	1.54	33.15
1900,	1.98	3.21	2.91	1.01	3.81	3.40	5.74	3.16	0.52	2.59	3.05	3.02	34.40
1901,	2.10	0.75	3.81	3.11	5.36	2.48	2.74	7.23	1.64	2.55	1.23	6.00	39.00
1903,	2.23	5.60	3.19	1.58	0.98	8.00	5.23	1.89	6.82	4.29	1.14	4.95	45.90
1903,	2.09	4.13	4.33	3.07	1.12	8.38	4.42	7.13	1.96	4.88	1.98	3.06	46.55
1904,	2.86	1.59	3.65	2.34	2.15	2.95	5.83	5.58	3.34	3.68	1.18	3.38	38.53
1905,	4.87	1.86	4.75	2.03	1.39	2.54	3.57	4.40	3.04	3.32	1.44	3.18	36.39
1906,	1.17	3.45	4.50	3.60	1.89	6.35	3.87	1.62	3.33	3.84	1.89	3.84	39.25
1907,	2.86	1.75	3.19	1.55	1.58	3.56	5.08	2.10	6.50	2.50	2.95	4.72	38.34
1908,	1.60	5.91	3.94	2.59	3.79	1.87	2.92	2.93	1.11	2.27	0.51	2.38	31.82
1909,	2.88	4.24	1.28	5.27	3.19	4.08	1.79	0.32	1.54	2.50	1.05	3.16	31.30
1910,	3.80	5.40	0.49	3.88	3.36	3.14	1.59	2.85	5.44	0.94	2.76	1.90	33.55
1911,	2.67	1.90	1.99	2.85	2.26	4.90	2.88	6.84	2.90	4.00	1.86	2.42	37.47
1912,	1.16	1.22	4.68	3.99	1.87	1.60	1.73	3.08	7.44	2.61	2.79	3.53	35.70
1913,	2.65	1.77	4.99	4.91	2.50	2.43	5.44	1.52	4.70	4.60	2.18	2.47	40.16
1914,	1.61	2.07	2.58	4.00	3.86	3.08	5.62	7.04	0.91	1.45	0.78	3.21	36.21
1915,	3.92	3.83	0.59	1.73	3.83	3.37	4.24	6.24	2.65	1.08	0.79	3.71	35.98
Means,	2.53	3.14	3.19	2.87	2.65	3.82	3.92	3.92	3.42	2.85	1.78	3.32	37.41

Note: 1899 to 1912 inclusive observations made at River Bridge, elevation 545 feet; 1913 to 1915 inclusive at 30 North Franklin Street, elevation 565 feet. This record furnished by The Spring Brook Water Supply Company, Wilkes-Barre, Pa.

Williamsfield, Ohio—(Elevation 1,080 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	3.07	2.12	3.15	5.01	4.39	3.94	4.01	5.48	0.99	2.70	2.24	4.28	41.38
1915,	2.96	2.61	1.07	0.58	3.07	3.17	6.96	4.44	2.95	2.18	2.08	3.27	35.34

Note: This station maintained and operated by Water Supply Commission of Pennsylvania.

Williamsport, Lycoming Co.—(Elevation 530 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1873,	3.00	2.05	3.72	3.30	2.95	3.76	5.32	6.98	1.56	5.66	1.92	3.21	43.43
1874,	2.57	2.83	2.92	5.13	1.26	1.91	2.72	3.61	4.10	2.06	2.70	1.45	33.36
1875,	2.34	1.99	3.57	3.50	0.80	0.50	3.10	6.35	4.10	4.92	1.68	3.40	36.25
1876,	1.37	3.76	4.21	2.85	1.93	......	......	......	8.88	1.29	4.27	2.58	......
1877,	2.96	1.50	3.10	1.82	1.75	4.85	4.15	3.15	3.95	7.65	4.50	1.09	40.47
1878,	6.15	2.84	......	......	......	......	......	......	......	......	......	......	......
1889,	......	1.80	1.45	3.30	4.80	6.20	5.10	2.80	3.40	4.20	7.70	4.00	......
1890,	3.50	3.70	4.30	4.00	6.20	3.60	3.80	4.30	3.90	6.40	1.30	4.25	49.25
1891,	4.00	5.20	5.20	2.00	1.20	5.00	4.70	6.50	2.40	2.60	3.00	4.80	46.60
1895,	*2.92	0.59	1.16	2.17	2.37	4.99	1.93	2.30	2.12	1.13	1.96	2.35	*25.98
1896,	1.76	3.81	4.17	1.03	1.77	3.98	4.16	2.96	3.81	5.70	2.55	0.89	36.59
1897,	1.45	2.99	3.00	2.25	2.85	3.89	4.77	5.83	2.99	1.68	3.46	3.64	38.80
1898,	3.76	1.56	3.44	2.81	4.95	2.73	1.15	4.75	0.81	5.92	1.97	2.86	36.71
1899,	1.46	3.71	4.36	1.71	2.36	4.25	2.00	4.15	2.94	3.26	2.13	4.63	36.96
1900,	2.31	3.72	3.63	0.81	2.35	2.89	2.57	2.89	1.01	2.35	3.26	2.15	29.94
1901,	1.40	0.66	3.63	5.57	6.34	2.99	3.29	5.18	3.21	1.59	2.59	6.05	42.50
1902,	3.61	4.81	4.05	2.43	1.45	5.61	6.02	1.69	5.65	2.10	1.31	3.74	42.47
1903,	3.95	3.24	3.96	3.67	1.88	5.49	6.08	5.05	1.43	4.22	2.33	2.85	44.15
1904,	3.64	1.10	5.11	3.63	5.28	3.07	5.59	2.13	2.60	2.34	0.51	2.63	37.53
1905,	4.55	1.01	3.61	1.65	2.09	3.13	5.95	5.78	2.95	3.18	2.38	3.77	40.05
1906,	1.51	1.18	4.49	3.22	2.14	3.64	3.26	5.32	3.42	4.87	0.89	2.60	36.54
1907,	3.38	0.94	2.22	2.14	2.02	7.16	1.88	0.94	4.19	2.14	2.42	4.11	33.54
1908,	2.62	5.08	3.60	3.69	5.22	2.15	8.01	3.93	1.29	3.66	0.56	2.36	42.17
1909,	2.51	3.90	2.15	8.23	2.65	3.85	0.75	1.40	1.84	2.06	0.59	3.31	33.22
1910,	5.56	3.32	0.42	6.51	2.80	3.84	2.90	1.49	3.79	0.92	1.35	2.12	34.92
1911,	2.81	1.67	1.84	3.84	1.28	2.81	3.71	6.07	3.49	3.83	1.82	2.53	35.69
1912,	1.21	3.07	3.95	4.13	2.58	0.79	3.22	9.65	5.28	2.45	2.93	2.49	41.75
1913,	4.25	1.41	4.04	4.38	3.54	1.18	4.74	2.99	4.55	4.80	2.28	3.09	41.25
1914,	2.37	2.96	2.64	4.73	4.32	2.71	4.55	3.01	0.90	2.83	2.31	3.32	36.65
1915,	6.85	2.69	0.95	2.33	4.33	3.96	6.31	6.05	1.61	1.52	2.84	4.15	43.59
Means,	3.10	2.64	3.27	3.34	2.95	3.60	3.99	4.19	3.18	3.36	2.40	3.19	39.30

Notes: *Interpolated. 1889-91 inclusive, record for Nisbet, 6 miles southwest of Williamsport. (Elevation Nisbet 550 feet).

Wilsonville, Wayne Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1912,	1.13	1.86	4.68	4.39	2.61	2.29	2.91	4.16	7.36	3.29	1.75	2.77	39.20
1913,	2.53	1.65	4.41	4.34	2.81	0.91	2.73	2.28	2.48	3.61	4.16	3.07	35.18
1914,	2.25	2.59	2.90	3.99	3.38	4.61	6.22	3.58	0.87	1.97	1.56	6.26	38.07
1915,	4.49	3.95	0.86	2.47	3.86	3.48	4.58	6.87	3.04	1.50	2.43	4.89	42.42

Note: This record furnished by L. B. Stillwell, Consulting Engineers, New York City.

Wysox, Bradford Co.—(Elevation 718 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1885,	....	....	....	....	....	....	....	5.15	1.12	6.63	2.66	1.91	....
1886,	3.64	0.95	2.82	2.88	2.57	2.60	5.02	1.43	4.25	2.21	....	1.08	....
1887,	0.66	3.53	1.44	2.10	2.49	2.03	....	....	....	....	....	....	....
1888,	2.63	1.25	2.07	1.82	2.31	2.75	2.31	6.13	4.40	3.24	3.27	2.51	34.69
1889,	2.70	1.73	1.73	3.78	4.76	4.86	5.17	2.07	3.21	3.16	5.02	2.51	40.70
1890,	1.99	2.46	3.38	3.42	....	4.75	3.62	5.71	4.37	4.24	0.81	3.48	....
1891,	3.72	2.71	3.12	1.79	0.49	3.48	2.63	2.49	1.79	4.43	2.73	2.83	32.21
1892,	3.61	1.39	2.04	0.91	4.86	6.45	3.19	4.37	1.48	1.02	2.59	1.28	33.19
1893,	5.48	2.92	2.91	....	3.06	2.65	3.98	5.43	2.89	1.33	....	....	....
Means,	3.04	2.12	2.44	2.39	2.93	3.70	3.70	4.10	2.94	3.28	2.85	2.23	35.72

York, York Co.—(Elevation 381 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	2.70	2.20	3.78	1.17	5.10	2.23	2.84	5.66	4.05	2.24	2.68	3.62	38.26
1889,	4.30	2.20	3.40	3.91	5.65	5.13	4.34	2.83	6.87	4.03	8.28	1.05	51.99
1890,	1.84	2.85	5.44	1.94	6.65	3.29	1.77	5.65	4.55	6.60	0.80	3.29	44.67
1891,	3.65	3.37	6.07	2.01	2.39	3.98	10.77	3.29	1.88	3.20	2.13	4.20	46.94
1892,	6.08	1.25	5.87	1.70	4.10	3.81	8.59	2.81	2.66	0.14	4.44	2.13	43.58
1893,	1.76	4.76	1.76	4.37	6.53	2.50	1.58	3.40	1.57	3.03	3.55	2.22	37.03
1894,	1.34	4.20	1.58	4.48	4.40	3.06	2.22	2.93	9.16	4.24	2.09	3.90	43.60
1895,	4.03	0.98	2.50	3.73	2.73	3.10	1.41	2.41	4.01	2.36	1.80	3.33	32.39
1896,	0.94	4.88	4.20	1.45	2.53	3.92	4.00	1.05	2.54	3.44	3.10	0.45	32.50
1897,	1.55	4.59	2.51	3.42	6.61	2.42	3.69	4.04	2.73	2.60	5.69	3.37	43.22
1898,	3.67	1.15	3.00	2.71	6.86	1.08	3.47	6.44	1.82	4.31	4.75	3.58	42.84
1899,	3.61	6.64	6.16	1.28	5.71	3.54	5.32	6.76	6.07	0.92	3.59	1.18	49.78
1900,	2.12	4.62	3.08	1.35	1.85	4.81	2.36	4.09	3.18	1.51	2.81	2.52	34.30
1901,	2.72	0.53	3.94	2.51	2.55	1.55	3.33	6.37	2.36	1.59	2.50	6.17	36.02
1902,	2.73	6.74	4.50	3.41	1.24	5.15	5.74	4.22	4.13	6.40	2.39	6.15	53.09
1903,	4.67	6.13	4.72	3.21	1.18	6.21	4.26	6.96	2.72	3.51	1.89	2.90	48.36
1904,	4.39	1.08	2.93	0.92	2.21	4.80	6.80	3.77	2.70	3.23	1.21	0.53	33.57
1905,	3.29	0.57	4.22	4.51	2.40	3.74	8.46	8.69	2.15	4.69	2.41	3.57	48.70
1906,	2.84	2.32	2.49	5.31	2.77	6.98	2.83	4.19	1.85	5.23	0.85	4.73	42.39
1907,	3.27	1.81	2.76	2.59	2.61	3.88	6.33	1.43	4.64	2.59	4.12	3.47	39.50
1908,	2.94	4.31	3.27	1.86	4.95	1.35	4.70	2.01	3.43	1.83	0.96	2.60	34.20
1909,	1.71	4.73	2.79	2.37	2.13	2.49	0.94	0.99	0.72	0.70	0.49	2.87	22.93
1910,	4.10	4.23	0.34	6.95	1.49	3.84	1.52	2.81	1.42	1.61	1.73	1.82	31.86
1911,	3.48	2.32	2.22	3.25	2.11	2.94	7.62	10.79	3.66	2.54	2.50	3.45	46.88
1912,	1.73	2.50	6.20	3.04	2.04	4.84	6.55	1.57	3.04	1.46	2.01	4.28	39.31
1913,	2.65	1.20	4.39	3.46	3.41	0.98	2.54	4.31	5.18	6.41	2.26	3.02	39.81
1914,	4.04	2.31	0.94	2.70	1.81	2.62	7.48	2.86	1.21	0.91	1.16	4.87	32.91
1915,	6.62	4.89	1.03	2.16	3.15	5.63	3.17	8.79	2.66	0.71	1.61	3.73	44.15
Means,	3.17	3.19	3.41	2.92	3.47	3.57	4.42	4.33	3.32	2.93	2.64	3.18	40.54

Note: Portion of this record furnished by the York Water Co., York, Pa.

York Sulphur Springs, Adams Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871,	3.40	2.60	6.10	2.80	2.70	3.65	4.05	3.50	1.55	2.90	3.40	0.85	37.50
1872,	1.15	1.85	1.30	1.45	2.46	4.06	1.20	8.14	3.45	4.80	3.68	2.35	35.38
1873,	3.65	7.55	2.90	2.97	4.75	3.69	3.35	11.75	2.35	5.87	2.30	....	....
1874,	....	....	2.05	5.96	2.76	1.65	4.25	4.70	4.20	2.25	2.06	2.40	....
1875,	2.00	2.60	4.50	3.30	1.35	5.00	6.05	7.15	2.70	4.35	3.80	2.70	45.50
1876,	1.30	2.75	7.40	2.00	3.15	4.15	2.65	3.17	....	....	....	....	....
Means,	2.30	5.77	4.04	3.08	2.86	3.70	3.59	6.23	2.85	4.03	7.08	2.08	47.61

West Newton, Westmoreland Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1891,	*3.00	6.45	3.49	1.86	4.16	4.41	5.12	1.98	1.35	2.11	1.79	3.59	*39.31
1892,	3.33	0.87	2.24	3.32	4.35	5.32	4.09	1.34	2.25	0.49	3.13	2.20	32.93
1893,	3.14	5.68	0.99	5.55	5.54	2.77	2.22	3.53	1.39	3.54	1.27	3.31	37.93
1894,	2.39	3.87	2.16	3.15	4.24	1.75	1.72	0.46	3.20	1.82	2.10	4.87	31.73
1896,	3.96	0.80	2.10	3.54	2.11	2.58	3.19	3.53	0.69	0.72	3.17	3.18	29.57
1896,	1.93	2.87	4.53	2.63	2.67	4.21	11.46	6.53	4.41	2.89	2.49	1.62	48.29
1897,	1.92	4.63	4.56	3.60	3.08	2.60	4.51	1.89	2.17	0.05	5.52	2.97	37.52
1898,	5.60	1.98	5.77	1.91	4.12	2.67	3.21	6.04	2.84	4.43	2.87	2.10	43.54
1899,	3.94	3.96	4.94	1.47	4.81	2.74	4.27	2.84	3.38	0.53	4.06	2.85	39.79
1900,	2.54	3.56	3.83	1.65	3.59	3.15	4.57	1.90	0.54	2.62	4.91	1.93	34.79
1901,	1.79	0.78	3.25	8.69	4.60	4.81	4.02	3.56	2.06	0.47	2.17	5.23	41.42
1902,	2.67	2.40	4.12	4.33	1.76	4.52	6.82	1.42	1.52	5.25	1.27	6.02	42.10
1903,	3.52	5.67	4.90	3.03	1.90	6.48	6.06	3.95	1.74	3.15	2.30	2.36	44.96
1904,	3.30	3.04	4.63	4.52	3.42	4.56	3.94	2.75	1.11	1.58	0.19	3.32	36.36
1905,	2.90	2.10	4.66	3.44	2.94	7.66	7.74	3.30	2.96	3.92	2.59	4.02	48.23
1906,	2.14	1.23	3.33	1.84	1.71	5.59	4.22	8.60	1.84	3.22	0.74	3.44	37.90
1907,	6.08	1.74	6.65	2.00	2.85	4.28	4.54	4.34	5.14	2.00	1.87	3.34	44.83
1908,	2.68	3.13	7.26	3.47	4.32	2.44	4.46	1.74	0.96	0.72	1.01	3.18	35.37
1909,	3.32	5.00	3.16	5.32	2.81	3.30	2.57	7.76	1.34	2.99	0.65	2.47	40.69
1910,	6.93	3.38	0.34	2.88	3.00	4.46	1.74	3.40	4.06	1.35	1.70	3.82	37.06
1911,	4.61	2.78	1.97	4.35	1.55	3.14	2.20	5.71	7.61	4.52	2.90	3.40	44.77
1912,	2.41	1.07	6.55	4.43	3.01	3.81	12.65	4.51	6.51	1.88	1.29	2.68	50.80
1913,	5.86	2.16	3.72	3.10	5.82	2.80	6.10	3.80	1.72	4.46	2.95	2.53	45.02
1914,	2.50	4.23	2.13	4.66	2.36	4.23	1.31	3.44	1.34	3.11	1.16	6.48	36.95
1915,	4.62	3.39	1 56	1.23	5.94	3.83	5.81	3.34	1.94	3.33	2.84	3.91	41.74
Means,	3.48	3.07	3.71	3.44	3.47	3.92	4.74	3.67	2.56	2.41	2.28	3.39	40.14

Note: *Interpolated.

Westtown, Chester Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1887,	....	....	....	....	....	....	....	2.85	....	4.98	1.36	5.41	....
1888,	5.11	5.43	3.13	....	2.88	2.23	3.63	3.14	5.63	5.37	....	4.08	....
1889,	3.51	1.72	....	....	....	....	....	....	....	5.37	8.13	1.23	....
1890,	0.37	2.39	4.68	....	5.90	2.83	....	....	3.60	5.75	0.97	3.30	....
1891,	5.64	4.14	5.38	....	3.04	4.52	....	....	....	....	0.92	3.24	....
1892,	5.32	1.66	4.08	....	7.23	0.73	....	....	2.38	0.30	5.41	2.27	....
1893,	2.40	3.95	....	....	3.15	1.30	....	....	1.35	....	....	3.07	....
1894,	1.39	3.99	1.60	....	13.40	4.08	....	....	5.83	5.58	2.85	4.36	....
1895,	....	1.02	....	....	3.34	3.74	....	....	0.67	3.41	1.42	2.68	....
1896,	....	7.21	4.78	....	1.51	....	....	....	6.97	2.40	c2.98	....	....
1897,	2.64	4.52	....	....	....	....	....	....	....	2.42	4.79	....	....
1898,	3.91	3.25	2.88	....	6.31	2.94	....	....	....	4.75	6.06	....	....
1899,	4.98	5.38	....	....	....	....	....	....	....	1.56	2.92	....	....
1900,	2.43	5.78	3.09	....	5.87	....	....	....	f3.38	2.87	0.95	....	....
1901,	3.08	0.76	4.43	....	3.16	k1.29	....	....	h2.11	1.28	2.94	16.25	....
1902,	4.08	5.98	2.81	....	1.55	....	....	....	....	....	....	....	....
Means,	3.45	3.81	3.69	....	4.78	2.80	....	....	3.78	3.54	3.21	3.40	....

White Haven, Luzerne Co.—(Elevation 1,150 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1895,	....	....	1.79	4.24	2.75	2.22	2.16	2.87	1.84	2.67	2.95	5.39	....
1896,	0.79	4.25	5.70	1.00	2.78	3.83	7.60	2.44	3.71	4.08	5.49	0.92	42.59
1897,	1.80	1.73	2.22	3.99	6.49	2.32	6.49	3.48	1.25	1.75	4.94	4.20	40.66
1898,	3.07	1.56	3.62	3.63	6.72	2.70	3.35	6.15	1.01	5.70	4.18	2.51	44.20
1899,	2.15	4.67	4.12	1.28	....	....	....	....	....	....	....	....	....
1906,	....	....	....	....	....	6.56	3.36	3.35	3.24	5.01	2.84	4.00	....
1907,	3.13	2.78	2.44	1.73	2.07	6.38	2.40	....	....	....	....	....	....
1914,	....	....	....	....	....	....	10.08	3.29	0.79	2.06	1.49	3.89	....
1915,	5.48	4.77	1.20	3.85	4.40	2.10	5.87	8.83	1.71	1.44	2.05	4.66	46.36
Means,	2.74	3.29	3.01	2.82	4.20	3.73	5.15	4.34	1.94	3.24	3.42	3.65	41.53

Wilkes-Barre, Luzerne Co.—(Elevation 575 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1883,	....	....	....	....	....	8.52	7.08	0.88	3.19	3.12	1.45	1.99	....
1884,	3.41	3.48	4.95	2.46	3.97	2.68	4.62	2.90	....	3.16	3.30	4.53	....
1885,	5.18	3.27	0.90	2.56	2.66	2.51	3.01	7.92	1.20	4.65	5.15	2.68	41.69
1886,	4.26	2.52	4.10	2.19	7.04	2.95	3.75	....	4.77	2.82	5.80	2.27	....
1887,	3.25	4.70	1.73	2.16	....	6.06	8.76	4.15	1.48	....	1.73	3.61	....
1888,	....	....	....	2.49	....	....	....	....	....	....	....	....	....
1889,	....	....	....	....	....	....	....	....	5.79	3.16	6.39	2.72	....
1890,	1.97	3.00	4.89	2.62	6.84	5.07	5.78	5.44	2.42	4.85	1.29	3.95	48.12
1891,	4.59	4.00	3.67	2.28	1.53	2.88	4.48	3.46	1.80	1.63	2.54	4.38	37.24
1892,	7.02	1.11	6.41	1.55	5.89	10.55	4.71	5.56	2.51	0.72	4.57	1.53	51.93
1893,	3.34	7.33	3.83	2.27	4.15	1.43	3.00	3.76	3.74	1.70	2.97	4.07	42.49
1894,	1.63	4.50	1.68	3.41	8.56	1.78	0.74	1.14	5.06	5.53	2.29	3.66	39.97
1895,	3.43	2.32	2.94	2.71	4.16	2.89	2.59	4.95	1.59	2.51	1.37	4.13	35.59
1896,	1.14	6.17	6.31	1.06	3.17	2.40	6.20	2.99	2.26	2.74	3.44	1.08	38.96
1897,	1.40	2.06	3.78	3.34	5.81	3.72	3.76	2.57	1.49	1.47	4.35	3.80	37.55
1898,	2.90	0.96	2.76	2.46	6.04	3.29	2.33	5.16	3.44	2.36	3.90	1.95	37.55
1899,	3.21	4.48	4.49	1.37	2.07	2.82	3.91	2.67	4.29	1.29	2.70	1.72	35.02
1900,	1.98	3.21	2.91	1.01	3.81	3.39	5.74	3.16	0.52	2.59	3.05	3.02	34.39
1901,	2.10	0.75	3.81	3.11	5.36	2.48	2.74	7.23	1.64	2.55	1.23	5.98	38.98
1902,	2.23	5.60	3.19	1.58	0.98	6.10	5.01	1.89	6.82	4.29	1.14	4.95	43.78
1903,	2.09	4.13	4.33	3.07	1.12	8.38	4.42	7.13	2.16	4.88	1.98	3.06	46.75
1904,	2.86	1.59	3.62	2.34	2.15	2.95	5.83	5.58	3.34	3.68	1.18	3.38	38.50
1905,	4.57	1.86	4.34	2.03	1.39	2.54	3.57	4.40	3.04	3.32	1.44	3.18	35.68
1906,	1.17	3.45	4.50	3.50	1.89	6.35	3.87	1.62	3.33	3.84	1.89	3.49	38.90
1907,	2.86	1.75	3.19	1.55	1.58	3.56	5.08	*2.20	6.50	2.60	2.95	5.66	*39.38
1908,	1.60	5.91	3.94	2.59	3.79	1.87	2.92	2.93	1.11	2.27	1.14	2.38	32.45
1909,	2.88	4.23	2.47	5.27	3.19	4.08	1.24	1.26	1.84	2.57	0.88	3.16	33.07
1910,	3.83	5.31	*1.00	3.88	3.36	3.14	1.59	2.85	5.44	0.94	2.76	*1.90	*36.00
1911,	2.47	1.37	1.83	2.37	0.91	6.18	2.13	6.83	2.94	3.88	2.12	1.98	35.01
1912,	1.13	1.29	4.49	3.66	1.96	1.68	1.87	3.17	7.85	2.46	2.73	2.86	35.15
1913,	2.45	1.80	4.44	5.42	3.09	2.78	5.69	1.75	4.70	4.76	2.26	2.16	41.30
1914,	1.51	2.01	2.32	3.98	4.18	3.04	6.15	7.20	0.93	1.53	0.86	3.62	37.33
1915,	4.47	3.99	0.70	1.76	3.23	3.42	4.49	6.70	2.61	1.24	1.41	3.76	37.78
Means,	2.90	3.27	3.45	2.68	3.58	3.92	4.10	3.98	3.22	2.87	2.56	3.21	39.74

Note: *Interpolated.

Wilkes-Barre, Luzerne Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1899,	2.52	4.67	3.30	1.37	2.07	2.82	3.91	2.67	4.29	1.29	2.70	1.54	33.15
1900,	1.98	3.21	2.91	1.01	3.81	3.40	5.74	3.16	0.52	2.59	3.05	3.02	34.40
1901,	2.10	0.75	3.81	3.11	5.36	2.48	2.74	7.23	1.64	2.55	1.23	6.00	39.00
1902,	2.23	5.60	3.19	1.58	0.98	8.00	5.23	1.89	6.82	4.29	1.14	4.95	45.90
1903,	2.09	4.13	4.33	3.07	1.12	8.38	4.42	7.13	1.96	4.58	1.98	3.06	46.55
1904,	2.86	1.59	3.65	2.34	2.15	2.95	5.83	5.58	3.34	3.68	1.18	3.38	38.53
1905,	4.87	1.86	4.75	2.03	1.39	2.54	3.57	4.40	3.04	3.32	1.44	3.18	36.39
1906,	1.17	3.45	4.50	3.50	1.89	6.35	3.87	1.62	3.33	3.84	1.89	3.84	39.25
1907,	2.86	1.75	3.19	1.56	1.58	3.56	5.08	2.10	6.50	2.50	2.95	4.72	38.34
1908,	1.60	5.91	3.94	2.59	3.79	1.87	2.92	2.93	1.11	2.27	0.51	2.38	31.82
1909,	2.88	4.24	1.28	5.27	3.19	4.08	1.79	0.32	1.54	2.50	1.05	3.16	31.30
1910,	3.80	5.40	0.49	3.88	3.36	3.14	1.59	2.85	5.44	0.94	2.76	1.90	33.85
1911,	2.67	1.90	1.99	2.85	2.26	4.90	2.88	6.84	2.90	4.00	1.86	2.42	37.47
1912,	1.16	1.22	4.68	3.99	1.87	1.60	1.73	3.08	7.44	2.61	2.79	3.53	35.70
1913,	2.65	1.77	4.99	4.91	2.50	2.43	5.44	1.52	4.70	4.60	2.18	2.47	40.16
1914,	1.61	2.07	2.58	4.00	3.86	3.08	5.62	7.04	0.91	1.45	0.78	3.21	36.21
1915,	3.92	3.83	0.59	1.73	3.83	3.37	4.24	6.24	2.65	1.08	0.79	3.71	35.98
Means,	2.53	3.14	3.19	2.87	2.65	3.82	3.93	3.92	3.42	2.85	1.78	3.32	37.41

Note: 1899 to 1912 inclusive observations made at River Bridge, elevation 545 feet; 1913 to 1915 inclusive at 30 North Franklin Street, elevation 565 feet. This record furnished by The Spring Brook Water Supply Company, Wilkes-Barre, Pa.

Williamsfield, Ohio—(Elevation 1,080 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1914,	3.07	2.12	3.15	5.01	4.39	3.94	4.01	5.48	0.99	2.70	2.24	4.28	41.38
1915,	2.96	2.61	1.07	0.58	3.07	3.17	6.96	4.44	2.95	2.18	2.08	3.27	35.34

Note: This station maintained and operated by Water Supply Commission of Pennsylvania.

Williamsport, Lycoming Co.—(Elevation 530 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1873,	3.00	2.05	3.72	3.30	2.96	3.76	5.82	6.98	1.56	5.66	1.92	3.21	43.43
1874,	2.57	2.83	2.92	5.13	1.26	1.91	2.72	3.61	4.10	2.06	2.70	1.45	33.26
1875,	2.34	1.99	8.57	3.60	0.80	0.50	3.10	6.35	4.10	4.92	1.68	3.40	36.25
1876,	1.37	3.76	4.21	2.85	1.93	....	....	....	8.88	1.29	4.27	2.58	....
1877,	2.96	1.50	3.10	1.82	1.75	4.85	4.15	3.15	3.95	7.65	4.50	1.09	40.47
1878,	6.15	2.84	....	....	....	....	....	....	....	....	....	....	....
1889,	....	1.80	1.45	3.30	4.80	6.20	5.10	2.80	3.40	4.20	7.70	4.00	....
1890,	3.50	3.70	4.30	4.00	6.20	3.60	3.80	4.30	3.90	6.40	1.30	4.25	49.25
1891,	4.00	5.20	5.20	2.00	1.20	5.00	4.70	6.50	2.40	2.60	3.00	4.80	46.60
1895,	*2.92	0.59	1.16	2.17	2.37	4.99	1.93	2.30	2.12	1.13	1.95	2.35	*25.98
1896,	1.76	3.81	4.17	1.03	1.77	3.98	4.16	2.96	3.81	5.70	2.55	0.89	36.59
1897,	1.45	2.99	3.00	2.25	2.85	3.89	4.77	5.83	2.99	1.68	3.46	3.64	38.80
1898,	3.76	1.56	3.44	2.81	4.95	2.73	1.15	4.75	0.81	5.92	1.97	2.86	36.71
1899,	1.46	3.71	4.36	1.71	2.36	4.25	2.00	4.15	2.94	3.26	2.13	4.63	36.96
1900,	2.31	3.72	3.63	0.81	2.35	2.89	2.57	2.89	1.01	2.35	3.26	2.15	29.94
1901,	1.40	0.66	3.63	5.57	6.34	2.99	3.29	5.18	3.21	1.59	2.59	6.05	42.50
1902,	3.61	4.81	4.05	2.43	1.45	5.61	6.02	1.69	5.65	2.10	1.31	3.74	42.47
1903,	3.95	3.24	3.96	3.67	1.88	5.49	6.08	5.06	1.43	4.22	2.33	2.85	44.15
1904,	3.64	1.10	5.11	3.63	5.28	3.07	5.59	2.13	2.60	2.24	0.51	2.63	37.53
1905,	4.55	1.01	3.61	1.65	2.09	3.13	5.95	5.78	2.95	3.18	2.38	3.77	40.05
1906,	1.51	1.18	4.49	3.23	2.14	3.64	3.26	5.32	3.42	4.87	0.89	2.60	36.54
1907,	3.38	0.94	2.22	2.14	2.02	7.16	1.88	0.94	4.19	2.14	2.42	4.11	33.54
1908,	2.62	5.08	3.60	3.69	5.22	2.15	8.01	3.93	1.29	3.66	0.56	2.36	42.17
1909,	2.51	3.90	3.15	8.22	2.65	3.85	0.75	1.40	1.84	2.05	0.59	3.31	34.22
1910,	5.56	3.32	0.42	6.51	2.80	3.84	2.80	1.49	3.79	0.92	1.35	2.12	34.92
1911,	2.81	1.67	1.84	3.84	1.28	2.81	3.71	6.07	3.49	3.82	1.82	2.53	35.69
1912,	1.21	3.07	3.95	4.13	2.58	0.79	3.22	9.65	6.28	2.45	2.93	2.49	41.75
1913,	4.25	1.41	4.04	4.38	3.54	1.18	4.74	2.99	4.55	4.80	2.28	3.09	41.25
1914,	2.37	2.96	2.64	4.73	4.33	2.71	4.55	3.01	0.90	2.83	2.31	5.32	38.63
1915,	6.85	2.69	0.95	2.33	4.33	3.96	6.31	6.06	1.61	1.62	2.84	4.15	43.59
Means,	3.10	2.64	3.27	3.34	2.95	3.60	3.99	4.19	3.18	3.35	2.40	3.19	39.30

Notes: *Interpolated. 1889-91 inclusive, record for Nisbet, 6 miles southwest of Williamsport. (Elevation Nisbet 560 feet).

Wilsonville, Wayne Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1912,	1.13	1.36	4.68	4.39	2.61	2.29	2.91	4.16	7.36	3.29	1.75	2.77	39.20
1913,	2.53	1.65	4.41	4.34	2.81	0.91	2.73	2.28	3.48	3.51	4.16	3.07	35.18
1914,	2.25	2.59	2.90	3.99	3.38	4.51	5.22	3.58	0.87	1.97	1.55	5.26	38.07
1915,	4.49	3.95	0.86	2.47	3.86	3.48	4.58	6.87	3.04	1.50	2.43	4.89	42.42

Note: This record furnished by L. B. Stillwell, Consulting Engineers, New York City.

Wysox, Bradford Co.—(Elevation 718 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1885,	....	....	....	....	....	....	....	5.15	1.12	6.63	2.66	1.91	....
1886,	3.54	0.95	2.83	2.88	2.57	2.60	6.02	1.43	4.25	2.21	....	1.08	....
1887,	0.66	3.53	1.44	2.10	2.49	2.03	....	....	....	....	....	....	....
1888,	2.63	1.25	2.07	1.82	2.31	2.75	2.31	6.13	4.40	3.24	3.27	2.51	34.69
1889,	2.70	1.73	1.73	3.78	4.76	4.86	5.17	2.07	3.21	3.16	5.02	2.51	40.70
1890,	1.99	2.46	3.38	3.43	....	4.75	3.62	5.71	4.37	4.24	0.81	3.48	....
1891,	3.72	2.71	3.12	1.79	0.49	3.48	2.63	2.49	1.79	4.43	2.73	2.83	32.21
1892,	3.61	1.39	2.04	0.91	4.86	6.45	3.19	4.37	1.48	1.02	2.59	1.28	33.19
1893,	5.48	2.92	2.91	....	3.05	2.65	3.98	5.43	2.89	1.33	....	....	....
Means,	3.04	2.12	2.44	2.39	2.93	3.70	3.70	4.10	2.94	3.28	2.85	2.23	35.72

York, York Co.—(Elevation 381 feet)

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1888,	2.70	2.20	3.78	1.17	5.10	2.23	2.84	5.65	4.05	2.24	2.68	3.62	38.28
1889,	4.30	2.20	3.40	3.91	5.65	5.13	4.34	2.83	6.87	4.03	8.28	1.05	51.99
1890,	1.84	2.85	5.44	1.94	6.65	3.29	1.77	5.65	4.55	6.60	0.80	3.29	44.67
1891,	3.65	3.37	6.07	2.01	2.39	3.98	10.77	3.29	1.88	3.20	2.13	4.20	46.94
1892,	6.08	1.25	5.87	1.70	4.10	3.81	8.59	2.81	2.66	0.14	4.44	2.13	43 68
1893,	1.76	4.76	1.76	4.37	6.53	2.50	1.58	3.40	1.57	3.03	3.55	2.22	37.03
1894,	1.34	4.20	1.58	4.48	4.40	3.06	2.22	2.93	9.16	4.24	2.09	3.90	43.60
1895,	4.03	0.98	2.50	3.73	2.73	3.10	1.41	2.41	4.01	2.36	1.80	3.33	32.39
1896,	0.94	4.88	4.20	1.45	2.53	3.92	4.00	1.05	2.54	3.44	3.10	0.45	32.50
1897,	1.55	4.59	2.51	3.42	6.61	2.42	3.69	4.04	2.73	2.60	5.69	3.37	43.22
1898,	3.67	1.15	3.00	2.71	6.86	1.08	3.47	6.44	1.82	4.31	4.75	3.59	42.84
1899,	3.61	6.64	5.16	1.28	5.71	3.54	5.32	6.76	6.07	0.92	3.59	1.18	49.78
1900,	2.12	4.62	3.08	1.35	1.85	4.81	2.36	4.09	3.18	1.51	2.81	2.52	34.30
1901,	2.72	0.53	3.94	2.51	2.55	1.55	3.33	6.27	2.36	1.59	2.50	6.17	36.02
1902,	2.73	6.74	4.80	3.41	1.24	5.15	5.74	4.23	4.12	6.40	2.39	6.15	53.09
1903,	4.67	6.13	4.72	3.21	1.18	6.21	4.26	6.96	2.72	3.51	1.89	2.90	48.36
1904,	4.39	1.08	2.93	0.92	2.21	4.80	5.80	3.77	2.70	3.23	1.21	0.53	33.57
1905,	3.29	0.57	4.22	4.51	2.40	3.74	8.46	8.69	2.15	4.69	2.41	3.57	48.70
1906,	2.84	2.33	2.49	5.31	2.77	6.98	2.83	4.19	1.85	5.23	0.85	4.73	42.39
1907,	3.27	1.81	2.76	2.59	2.61	3.88	6.33	1.43	4.64	2.59	4.12	3.47	39.50
1908,	2.94	4.31	3.27	1.86	4.96	1.35	4.70	2.01	3.43	1.83	0.96	2.60	34.20
1909,	1.71	4.73	2.79	2.37	2.13	2.49	0.94	0.99	0.72	0.70	0.49	2.87	22.93
1910,	4.10	4.23	0.34	6.95	1.49	3.84	1.62	2.81	1.42	1.61	1.73	1.82	31.86
1911,	3.48	2.32	2.22	3.25	2.11	2.94	7.62	10.79	3.66	2.54	2.50	3.45	46.88
1912,	1.78	2.50	6.20	3.04	2.04	4.84	6.55	1.57	3.04	1.46	2.01	4.28	39.31
1913,	2.65	1.20	4.39	3.46	3.41	0.98	2.54	4.31	5.18	6.41	2.26	3.02	39.81
1914,	4.04	2.31	0.94	2.70	1.81	2.62	7.48	2.86	1.21	0.91	1.16	4.87	32.91
1915,	6.62	4.89	1.03	2.16	3.15	5.63	3.17	8.79	2.66	0.71	1.61	3.73	44.15
Means,	3.17	3.19	3.41	2.92	3.47	3.57	4.42	4.32	3.32	2.93	2.64	3.18	40.54

Note: Portion of this record furnished by the York Water Co., York, Pa.

York Sulphur Springs, Adams Co.

Year.	Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871,	3.40	2.60	6.10	2.80	2.70	3.65	4.05	3.50	1.55	2.90	3.40	0.85	37.50
1872,	1.15	1.85	1.30	1.45	2.46	4.06	1.30	8.14	3.45	4.80	3.68	2.35	35.88
1873,	3.65	7.55	2.90	2.97	4.75	3.69	3.35	11.75	2.35	5.87	2.30	....	....
1874,	....	....	2.05	5.95	2.75	1.65	4.25	4.70	4.20	2.25	2.05	2.40	....
1875,	2.00	2.60	4.50	3.30	1.35	5.00	6.05	7.15	2.70	4.85	3.80	2.70	45.50
1876,	1.30	2.75	7.40	2.00	3.15	4.15	2.65	2.17	....	....	....	....	....
Means,	2.30	5.77	4.04	3.08	2.86	3.70	3.59	6.23	2.85	4.03	7.08	2.08	47.61

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